U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

## SEARCH REQUEST FORM

Requestor's		Serial Number:	
Name:			Art Unit:
Date:	Phone:		Art onto
Search Topic: Please write a detailed streems that may have a sp	atement of search topic. Describe ecial meaning. Give examples or the sequence. You may include a co	specifically as possible the relevent citations, authors, lopy of the broadest and/or n	subject matter to be searched. Define an keywords, etc., if known. For sequences, nost relevent claim(s).
please attach a copy of the			
	•		
	ST	AFF USE ONLY	
Date completed:	07-07-04	Search Site	Vendors
Searcher: Be	07-07-04 Jerus e 2528	STIC	IG
Terminal time:	Zo'	CM-1	STN Dialog
		Pre-S	APS
CPII time:		Type of Search	
Total time:	25	N.A. Sequ	
Number of Searches	»:	Structure	DARC/Que
Number of Databas	es:	Bibliogra	ohic Other

PTO-1590 (9-90)

From:

Ramirez, Delia

Sent:

Wednesday, June 30, 2004 11:45 AM STIC-Biotech/ChemLib

To:

Subject:

case 09/762,258

Hi,

I would like to request the following interference search:

- 1. seq id 1 and 2 in the nucleic acid databases
- 2. seq id 2 in the protein databases

Thank you,

Delia M. Ramirez, Ph.D. Patent Examiner Recombinant Enzymes-Art Unit 1652 USPTO 400 Dulany Street, Remsen Bldg., 3A74, Mail room 3C70 Alexandria, VA 22314 (571) 272-0938 delia.ramirez@uspto.gov

Searcher:
Phone:
Location:
Date Picked Up:
Date Completed:
Searcher Prep/Review:
Clerical:
Online time:

TYPE OF SEARCH:
NA Sequences:
AA Sequences:
Structures:
Bibliographic:
Litigation:
Full text:
Patent Family:
Other:

VENDOR/COST (where applic.)
STN:
DIALOG:
Questel/Orbit:
DRLink:
Lexis/Nexis:
Sequence Sys.:
WWW/Internet:
Other (specify):

Run

9

OM protein -

protein search,

pursu

Copyright

Minimum DB Maximum DB

seq length:
seq length:

2000000000 0 Total number of

389**414 seqs,** Gapop 10.0 , BLOSUM62

Gapext

Scoring table: Sequence: Perfect score:

US-09-762-258-2 2614

37, Applia 2, Applia 2, Applia 2, Applia 34, Applia 4, Applia 4, Applia 137, Applia 137, Applia 8, Applia 8, Applia 8, Applia 8, Applia 8, Applia 9, Applia 9, Applia 9, Applia 9, Applia 9, Applia 13, Applia 13, Applia 13, Applia 13, Applia

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed, derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Issued_Patents_AA:*
1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/2/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/2/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/2/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/2/iaa/PCTUS_COMB.pep:*
5: /cgn2_6/ptodata/2/iaa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                June 30, 2004, 16:54:07; Search time 23 Seconds (without alignments) 1111.081 Million cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MARGRRARGAGAAMAAVFDL......PIRPPSGTKKSKRGRGRPGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GenCore version 5.1.6 (c) 1993 - 2004 Compugen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                51625971 residues
   US-09-430-564-3
US-09-430-564-2
US-08-749-902-8
US-08-749-902-7
US-09-430-564-12
US-09-430-564-12
US-09-430-564-12
US-09-430-564-12
US-09-430-564-12
US-09-111-2709-5
US-09-111-2709-5
US-09-111-444-5
US-09-111-444-5
US-09-111-444-5
US-09-111-444-5
US-09-111-444-5
US-09-117-197-13
US-09-417-197-13
US-09-417-197-13
US-09-417-197-13
US-09-417-197-13
US-09-417-197-73
US-09-417-047-4
US-09-457-0408-11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SUMMARIES
Sequence 3, Appli
Sequence 2, Appli
Sequence 1, Appli
Sequence 16, Appli
Sequence 17, Appli
Sequence 17, Appli
Sequence 12, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 5, Appli
Sequence 5, Appli
Sequence 9, Appli
Sequence 9, Appli
Sequence 9, Appli
Sequence 9, Appli
Sequence 17, Appli
Sequence 17, Appli
Sequence 13, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 3, Appli
Sequence 17, Appli
Sequence 17, Appli
Sequence 2, Appli
Sequence 17, Appli
Sequence 15, Appli
Sequence 15, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: John Blenis
APPLICANT: Kay K. Lee-Fruman
APPLICANT: Calvin J. Kuo
TITLE OF INVENTION: P5486K AND P8586K GENES, PROTEINS,
TITLE OF INVENTION: P5486K AND DETECTION METHODS
FILE REFERENCE: 00246/506002
CURRENT APPLICATION NUMBER: US/09/430,564
CURRENT FILING DATE: 1999-10-29
PRIOR APPLICATION NUMBER: 60/106,141
PRIOR FILING DATE: 1998-10-29
INTHER APPLICATION NUMBER: 60/106,141
PRIOR FILING DATE: 1998-10-29
INTHER OF SEQ ID NOS: 16
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 3
LENGTH: 495
TYPE: PRT
CRGANISM: Homo sabiens
                                                                                                                                                                                     Ş
                                 5
                                                                           片
                                                                                                       S
                                                                                                                                             망
                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                          5
                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                              맑
                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-430-564-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 1
US-09-430-564-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application Patent No. 6372467 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                618.5
617.5
617.5
617.5
617.5
616.7
618.5
618.5
618.5
618.5
618.5
618.5
618.5
618.5
618.5
618.5
                                         301
                                                                                                                                                     181
                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                121 RNAKDTAHTRABRNILESVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                         495;
                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                            £1
                                                                                                                                                                                                                                                                                                                                                                              μ.
                                                                                                                                                                                                                                                                                                                                                                                                    1 MARGRRARGAGAAMAAVFDLDLETEEGSEGEGEPELSPADACPLAELRAAGLEPVGHYEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       h 100.0%; Score 2614; DB 4; Similarity 100.0%; Pred. No. 4.3e-209;
                       LPPYLTPDARDLVKKFLKRNPSQRIGGGPGDAADVQRHPFFRHMMDDLLAWRVDPPFRP
     LPPYLTPDARDLVKKFLKRNPSQR1GGGPGDAADVQRHPFFRHMNWDDLLAWRVDPPFRP
                                                                         TPCGTIEYMAPEILVRSGHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLA
                                                                                                   TFCGTIEYMAPEILVRSGHNRAVDWWSIGALMYDMLTGSPPFTAENRKKTMDKIIRGKLA
                                                                                                                                                 EDTACFYLABITLALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKBSIHEGAVTH
                                                                                                                                                                         EDTACFYLABITLALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTH
                                                                                                                                                                                                                            RNAKDTAHTRAERNILESVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFL
                                                                                                                                                                                                                                                                                                      VELTETS VNVGPERIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIV
                                                                                                                                                                                                                                                                                                                            VELTETSVNVGPERIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIV
                                                                                                                                                                                                                                                                                                                                                                              MARGRRARGAGAAMAAVFOLDLETEEGSEGEGEPELSPADACPLAELRAAGLEPVGHYEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US/09430564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-457-040B-37
US-09-394-455-34
US-09-394-455-38
US-09-394-455-38
US-09-394-455-38
US-09-417-197-69
US-09-417-197-137
US-09-417-197-135
US-07-857-224B-7
US-07-857-224B-15
US-07-857-224B-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             495;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

Gaps

300 300 240 240 180 180 120 120 60 60 0

360

Result

Score

Query Match

Length

BB

score greater and is derived

No.

2614 2554 1749 1749 1747 1747 1747 1428 1428 802.5 802.5 802.5 802.5 802.5 802.5 802.5 802.5 802.5 802.5

```
TITLE OF INVENTION: p5436K AND p8586K GENES, PROTEINS,
TITLE OF INVENTION: PRIMERS, PROBES, AND DETECTION METHODS
FILE REFERENCE: 00245/506002
CURRENT APPLICATION NUMBER: US/09/430,564
CURRENT FILING DATE: 1999-10-29
PRIOR APPLICATION NUMBER: 60/106,141
PRIOR PILING DATE: 1998-10-29
NUMBER OF SEG ID NOS: 16
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 2
LENGTH: 482
TYPE: DET
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 2, Application US/09430564 Patent No. 6372467
                                                                                                                                                                                                                                                                                               254 LVRSGHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 74 RIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRABR
                                          PVSPLKFSPFEGFRPSPSLPEPTELFLPPLLPPPPDSTTAPLFIRPPSGTKKSKRGRGRP
                                                                                                      RFTRQTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQPKLRSPRRLNSSPRV
                                                                                                                                          RFTROTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQPKLRSPRRINSSPRV 433
                                                                                                                                                                                      KKFLKRNPSQRIGGGPGDAADVQRHPFFRHMNWDDLLAWRVDFPFRPCLQSEEDVSQFDT
                                                                                                                                                                                                               KKFLKRNPSQRIGGGPGDAADVQRHPFFRÆMNWDDLLAWRVDPPFRPCLOSEEDVSQFDT 373
                                                                                                                                                                                                                                                                        LVRSGHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLV
                                                                                                                                                                                                                                                                                                                                                         ALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEI
                                                                                                                                                                                                                                                                                                                                                                                      ALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHBGAVTHTFCGTIBYMAPEI
                                                                                                                                                                                                                                                                                                                                                                                                                                           NILESVKHPETVELAYAFQTGGKLYLILECLSGGELFTHLSREGIFLEDTACFYLAEITL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NILESVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACEYLAEITL 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RIGPHCFELLRYLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MAAVFDLDLETEEGSEGEGEPELSPADACPLAELRAAGLEPVGHYEEVELTETSVNVGPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MAAVFDLDLETBEGSBGEGEPELSPADACPLAELRAAGLEPVGHYEEVELTETSVNVGPE
                      PVSPLKFSPFEGFRPSPSLPEPTELPLPPLLPPPPPSTTAPLPIRPPSGTKKSKRGRGRP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLQSEEDVSQFDTRFTRQTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQPK 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LRSPRRLNSSPRVPVSPLKFSPFEGFRPSPSLPEPTELPLPPPLLPPPPPSTTAPLFIRPP 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kay K. Lee-Fruman
Calvin J. Kuo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SGTKKSKRGRGRPGR 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SGTKKSKRGRGRPGR 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LRSPRRINSSPRUPUSPLKFSPFEGFRPSPSLPEPTELPLPPPPPSTTAPLPIRPP 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       97.6%; Score 2551; DB 4; I
100.0%; Pred. No. 7.2e-204;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 482;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                      480
                                                                                                    420
                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                              313
                                                                                                                                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                                                                                                                                                 253
                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                          g
D
                                                                                                                                                              Ś
                                                                                                                                                                                                                                              á
                                        문
                                                                                Ś
                                                                                                                          문
                                                                                                                                                                                                                                                                                        B
δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-08-749-902-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 3
US-08-749-902-8
                                                                                                                                                                                                                                                                                                                                                                        Matches 350; Conservative
                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Patent No. 5985635
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 8,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEPAX: 415-845-4166
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STRANDEDNESS: s
TOPOLOGY: linea
IMMEDIATE SOURCE:
LIBRARY: GenBan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
FILING DATE:
AFTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/08/7 FILING DATE: Filed Herewith PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: US
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Bandman, Olga
APPLICANT: Goli, Surya K.
APPLICANT: Hillman, Jennifer L.
TITLE OF INVENTION: NOVEL HUMAN SERINE/THREONINE
TITLE OF INVENTION: PROTEIN KINASES
                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 3174 Por
CITY: Palo Alto
STATE: CA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH:
                                          177
  226
                                                                                  166
                                                                                                                            117
                                                                                                                                                                106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      494
                                                                                                                                                                                                          57
                                                                                                                                                                                                                                                  50
                                                                                                                                                                                                                                                                                          _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        , Application US/08749902
5985635
                                                                                                                                                     GKIYAMKVLRKAKIVRNAKDTAHTRAERNILESVKHPFIVELAYAFQTGGKLYLILECLS 165
                                                                                                                                                                                                                                       AGLEP----VGHYEEVELTETSVNVGPERIGPHCFELLRVLGKGGYGKVFQVRKVQGTNL 105
FGLCKESIHEGAVTHTFCGTIEYMAPEILVRSGHNRAVDWWSLGALMYDMLTGSPPFTAE
                                          GGELFMQLEREGI FMEDTACPYLABISMALGHLHQKGI I YRDLKPENIMLNHQGHVKLTD
                                                              GGELFTHLEREGIFLEDTACFYLAEITLALGHLHSQGIIYRDLKFENIMLSSQGHIKLTD
                                                                                                                            GKI FAMKVLKKAMI VRNAKDTAHTKABRNI LBEVKHPF I VDLI YAPQTGGKLYLI LBYLS
                                                                                                                                                                                                            GGVGPYELGMEHCEKFÉISÉTŚVNRGPEKIRPECFELLRVLGKGGYGKVFQVRKVTGANT 116
                                                                                                                                                                                                                                                                                          WRRRRRRDGFYPAPDFRDREAEDMAGVFDIDLDQPEDAGSEDELE----EGGQLNESMDH 56
                                                                                                                                                                                                                                                                                                                                  MARGRRARGAGAA------MAAVFDLDLETEEGSEGEGEDELSPADACPLAE-LRA 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ရှု:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      អូ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       525 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INCYTE PHARMACEUTICALS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 single
                                                                                                                                                                                                                                                                                                                                                                        66.9%; Score 1749; DB 2; 68.2%; Pred. No. 3.6e-137; ative 51; Mismatches 82;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US/08/749,902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PF-0150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        믾
                                                                                                                                                                                                                                                                                                                                                                                                                   Length 525;
                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                             30;
                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                            176
                                        236
                                                                                  225
```

멂 δ 뮹 Ş 밁 Ś Ś 멍

벙

241

374 301 片 S

S

181 194 121 134 Š В Ś

14

; TYPE: PRT; ORGANISM: Homo sapiens US-09-430-564-2

Query Match Best Local Similarity Matches 482; Conserv

RESULT 2 US-09-430-564-2

GENERAL INFORMATION:

John Blenis

APPLICANT: APPLICANT: δõ 망 Ş 문

481 421

481

361

361

421

뮹

μ. Q

```
Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Bandman, ---
APPLICANT: Goli, Surya K.
APPLICANT: Hillman, Jennifer L.
APPLICANT: Hillman, Jennifer L.
TITLE OF INVENTION: NOTEL HUMAN SERINE/THREONINE
TITLE OF INVENTION: PROTEIN KINASES
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSE: INCYTE PHARMACEUTICALS, INC.
STREET: 3174 POTTER Drive
                                                                                                     ; CLONB: 189508
US-08-749-902-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-749-902-7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       당
                                                                                                                                                       INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 525 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                      Query Match
Best Local Similarity
Matches 351; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 7, Application Patent No. 5985635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No.
                                                                                                                                                                                                                                                                                                                                               SOFTWARE: FASTSEQ Version 2.0 CURRENT APPLICATION DATA:
CAPPLICATION UNMBER: US/08/749,99
FILING DATE: Filed Herewith PRIOR APPLICATION UNMBER:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                           ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                             TOPOLOGY: line
IMMEDIATE SOURCE:
LIBRARY: GenBa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM: MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 3174 Port
CITY: Palo Alto
STATE: CA
COUNTRY: US
                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM CON
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               297
 1 MARGRRARGAGAA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SVIDSIKEGFSFOPKLRSPRRINSSPRVPVSPLKFSPFE----GERPSPSLPE-FTELPL 460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WDDLLAWRVDPPFRFCLQSEEDVSQFDTRFTRQTPVDSPDDTALSESANQAFLGFTYVAP 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NRKKTIDKILKCKLNLPPYLTQEARDLLKKLLKRNAASRLGAGPGDAGEVQAHPFFRHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ETSGIEQMDVTTSGEASAPLPIRQPNSGPYKKQ 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PPLLPPPPPSTT----APLPIRPP-SGTKKSK 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WEELLARKVEPPFKPLLQSEEDVSQFDSKFTRQTPVDSPDDSTLSESANQVFLGFTYVAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NRKKTWDKIIRGKLALPPYLTPDARDLVKKFLKRNPSQRIGGGPGDAADVQRHPFFRHWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SVLESVKEKFSFEPKIRSPRRFIGSPRTPVSPVKFSPGDFWGRGASASTANPQTPVEYPM 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FGLCKESIHDGTVTHTFCGTIEYMAPEILMRSGHNRAVDWWSLGALMYDMLTGAPPPTGE
                                          Conservative
                                                                                                                               GenBank
                                                                                                                                                                                                                                                                                                                                                                                                                                                               IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Diskette
                                         66.8%; Score 1747; DB 2; 67.9%; Pred. No. 5.2e-137; Dive 49; Mismatches 79;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/08749902
                                                                                                                                                                                                                                                                                                                                                                                                       US/08/749,902
                                                                                                                                                                                                                                                                                         PF-0150 US
-MAAVFDLDLETEEGSEGEGSPELSPADACPLAE-LRA 49
                                                                    Length 525;
                                          Indels
                                          38,
                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      296
                                         œ
                      Q
                                                       В
                                                                                 Ş
                                                                                                                                        Ś
                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밝
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 븅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ₽
```

```
US-09-430-564-16
                                                                                                                                                                                                                                                                                                                                                                  ; SOFTWARE: FastSEQ for W:
SEQ ID NO 16
; LENGTH: 525
; TYPE: PRT
; ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 5
US-09-430-564-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: John Ble
APPLICANT: Kay K. L
APPLICANT: Calvin J
                                                                                                                                                                                                                                                        Query Match 66.8%; Score 1747; DB 4; Length 525; Best Local Similarity 67.9%; Pred. No. 5.2e-137; Matches 351; Conservative 49; Mismatches 79; Indels 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 16, Application US/09430564
Patent No. 6372467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 60/106,141
PRIOR FILING DATE: 1998-10-29
NUMBER OF SEQ ID NOS: 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: P5486K AND P8586K GENES, PROTEINS, TITLE OF INVENTION: PRIMERS, PROBES, AND DETECTION MET FILE REFERENCE: 00246/506002 CURRENT APPLICATION NUMBER: US/09/430,564 CURRENT FILING DATE: 1999-10-29
417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               473 EYPMETSGIEQMDVTMSGEASAPLPIRQPNSGPYKKQ 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        286 NRKKTMOKI IRGKLALPPYLTEDARDLVKKPLKRNPSQRIGGGPGDAADVQRHPFFFRHMO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117 GKIFAMKVIKKAMIVRNAKDTAHTKABRNILBEVKHPFIVDLIYAFQTGGKLYLILBYLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    106 GKIYAMKVLRKAKIVRNAKOTAHTRAERNILESVKHPPIVELAYARQTGGKLYLILECLS
                                                                                       57
                                                                                                              50 AGLEP----VGHYEEVELTETSVNVGPERIGPHCFELLRVLGKGGYGKVFQVRKVQGTNL 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50 AGLEP----VGHYEEVELTETSVNVGPERIGPHCFELLRVLGKGGYGKVFQVRKVQGTNL 105
                                                                                                                                                                          1 MRKRKRDGFYPAPDFRDREAEDMAGVFDIDLDQPEDAGSEDELE----EGGQLNESMDH
                                                                                                                                                                                                                 1 MARGRRARGAGAA------MAAVEDLDLETEEGSEGEGEBELSPADACPLAE-LRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                57 GGVGPYELGMEHCEKFEISETSVNRGPEKIRPECFELLRVLGKGGYGKVFQVRKVTGANT 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MRRRRRDGFYPAPDFRDREAEDMAGVFDIDLDQPEDAGSEDELE----EGGQLNESMDH
                                                                                         GGVGPYELGMEHCEKFEISETSVNRGPEKIRPECFELLRVLGKGGYGKVFQVRKVTGANT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LPPPPPS-----TTAPLPIRPP-SGTKKSK 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SVLDSIKEGESFOPKLRSPRRLNSSPRVPVSPLKESP--EEGERPSPSLPEPTELPLPPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WEELLARKVEPPFXPLLQSBEDVSQFDSKFTRQTFVDSPDDSTLSSSANQVFLGFTYVAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NRKKTIDKILKCKLNLPPYLTQEARDLLKKLLKRNAASRLGAGPGDAGEVQAHPPFRHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                          FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SVLESVKEKFSFEPKIRSPRRFIGSPRTPVSPVKFSPGDFWGRGASAS---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kay K. Lee-Fruman
Calvin J. Kuo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FGLCKESIHDGTVTHTFCGTIEYNAPEILMRSGHNRAVDWWSLGALMYDMLTGAPPFTGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FGLCKESIHEGAVTHTFCGTIEYMAPEILVRSGHNRAVDWWSLGALMYDMLTGSPPFTAB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     John Blenis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  METHODS
                                                                                                                                                                                                                                                               38;
                                                                                                                                                                                                                                                               Gaps
                                                                                         116
                                                                                                                                                                            56
                                                                                                                                                                                                                        49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236
                                                                                                                                                                                                                                                               œ
```

```
APPLICANT: Stewart, Mary
APPLICANT: Kozma, Sarah
APPLICANT: Kozma, Sarah
APPLICANT: Thomas, George
TITLE OF INVENTION: Drosophila Melanogaster P70
FILE REFERENCE: 4-20971/A
CURRENT APPLICATION NUMBER: US/09/817,310
CURRENT FILING DATE: 2001-03-26
PRIOR APPLICATION NUMBER: 09/230,247
PRIOR FILING DATE: 1999-04-16
NUMBER OF SEQ ID NOS: 5
SOCTWARE: Patentin Ver. 2.0
SEQ ID NO 2
S
                                  문
                                                                                                          밁
                                                                                                                                        δ
                                                                                                                                                                                g
                                                                                                                                                                                                                 S
                                                                    δ
                                                                                                                                                                                                                                                    В
                                                                                                                                                                                                                                                                                     Š
                                                                                                                                                                                                                                                                                                                              뮹
                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; LENGTH: 637
TYPE: PRT
; ORGANISM: Drosophila melanogaster
US-09-817-310-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 6
US-09-817-310-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                      Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 2, Application US/09817310 Patent No. 6534311
                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                             198
                                                                                                                                                                                  135
                                                                                                                                                                                                                   138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               166
                                                                                                                                                                                                                                                        75
                                                                                                                                                                                                                                                                                                                              17
                                                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                                                      al Similarity
279; Conserv
                                                              GHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKPL
                                                                                                          LHKLGIIYRDLKPENILLDAQGHVKLTDFGLCKEHIQEGIVTHTFCGTIEYMAPBILTRS
                                                                                                                                    LHSQGIIYRDLKPENIMLSSQGHIXLTDFGLCKESIHEGAVTHTFCGTIBYMAPBILVRS
                                                                                                                                                                                AVKHPFIVELVYAFQIDGKLYLILEYLSGGELFMHLEREGIFLEDTTCFYLSBIILALGH
                                                                                                                                                                                                  SVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGH
                                                                                                                                                                                                                                                        KDFBLKKVLGKGGYGKVFQVRKTAGRDANKYFAMKVLKKASIVTNQKDTAHTRABENILB
                                                                                                                                                                                                                                                                              HCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRABRNILE
                                                                                                                                                                                                                                                                                                                            DLELQDDKARDSDDDRIELDDVDLEP--BLCINLHQDTEGQETIQLCEENVNPGKIKLGP
                                                                                                                                                                                                                                                                                                                                                                 DIDLETEEGSEGEGEP-ELSPADACPLAEIRAAGLEPVGHYEEVELTETSVNVGPERIGP
 KRNPSQRIGGGPGDAADVQRHPFFRHMNWDDLLAWRVDPPFRPCLQSEEDVSQFDTRFTR 371
                                  GHGKAVDWWSLGALMFDMLTGVPPFTAENRKKTIETILKAKLNLPAYLTPEARDLVRRLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LPPPPPS-----TTAPLPIRPP-SGTKKSK 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SVLESVKEKFSFEPKIRSPRRFIGSPRTPVSPVKFSPGDFWGRGASAS----TANPQTPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SVLDSIKEGFSFQPKLRSPRRLNSSPRVPVSPLKFSP--FEGFRPSPSLPEPTELPLPPL 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NRKKIMDKIIRGKLALPEYLTPDARDLVKKFLKRNPSQRIGGGFGDAADVQRHPFFRHMN 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGELFMQLEREGIFMEDTACFYLAEISMALGHLHQXGIIYRDLKPENIMLNHQGHVKLTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGELFTHLEREGIFLEDTACFYLABITLALGHLHSQGIIYRDLKPENIMLSSQGHIKLTD 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EYPMETSGIEQMDVTMSGEASAPLPIRQPNSGPYKKQ 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PGLCKESIHEGAVTHTFCGTIEYMAPEILVRSGHNRAVDWWSLGALWYDMLTGSPPFTAE 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WEELLARKVEPPFKPLLQSEEDVSQFDSKFTRQTPVDSPDDSTLSESANQVFLGFTYVAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WDDLLAWRYDPFFRPCLQSEEDVSQFDTRFTRQTPVDSPDDTALSESANQAFLGFTYVAP 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NRKKTIDKILKCKLNLPPYLTQEARDLLKKLLKRNAASRLGAGPGDAGEVQAHPFFRHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FGLCKESIHDGTVTHTFCGTIEYMAPEILMRSGHNRAVDWWSLGALMYDMLTGAPPFTGE 296
                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                54.6%; Score 1428; DB 4; 67.2%; Pred. No. 2.2e-110; tive 47; Mismatches 81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P70
                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 637;
                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                      8
                                  314
                                                                                                          254
                                                                                                                                           257
                                                                                                                                                                                194
                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                      134
                                                                                                                                                                                                                                                                                         137
                                                                                                                                                                                                                                                                                                                              74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            236
                                                                                                                                                                                        ; Sequence 3, Application
; Patent No. 5985635
; GENERAL INFORMATION:
; APPLICANT: Bandman.
                                                                                                                                                                                                                                                                        US-08-749-902-3
                                                                                                                                                                                                                                                                                           RESULT 8
```

APPLICANT: Goli, Surya K.
APPLICANT: Hillman, Jennifer L.
TITLE OF INVENTION: NOVEL HUMAN SERINE/THREONINE
TITLE OF INVENTION: PROTEIN KINASES
NUMBER OF SEQUENCES: 8

Application US/08749902

Bandman, Olga

CORRESPONDENCE ADDRESS

CITY: Palo Alto STATE: CA

STREET: ADDRESSEE:

3174 Porter Drive

INCYTE PHARMACEUTICALS,

```
밁
                              S
                                                                 맑
                                                                                                 δ
                                                                                                                                       밁
                                                                                                                                                                       S
                                                                                                                                                                                                              문
                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                             ; ORGANISM: Homo sapiens
US-09-430-564-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 7
US-09-430-564-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                     Matches 268;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: 1
SEQ ID NO 12
                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 12, Appli
Patent No. 6372467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: John Blenis
APPLICANT: Kay K. Lee-Fruman
APPLICANT: Kay K. Lee-Fruman
APPLICANT: Calvin J. Kuo
TITLE OF INVENTION: PS456K AND P8556K GENES, PROTEINS,
TITLE OF INVENTION: PRIMERS, PROBES, AND DETECTION METHODS
FILE REFERENCE: 00246/506002
CURRENT APPLICATION NUMBER: US/09/430,564
CURRENT FILING DATE: 1999-10-29
PRIOR APPLICATION NUMBER: 05/106,141
PRIOR FILING DATE: 1998-10-29
PRIOR PRIOR APPLICATION NUMBER: 1998-10-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 268
                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
241
                                 318
                                                                 181
                                                                                                     258
                                                                                                                                         121
                                                                                                                                                                         198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         378 QTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQPKLRSPRRLNSSPR 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            315
                                                                                                                                                                                                                                   138 SVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGH
                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                   78 HCFELLRVIGKGGYGKVFQVRKVQGTNIGKIYAMKVIRKAKIVRNAKOTAHTRAERNILE
                                                                                                                                                                                                                                                                                  -
                                                                                               GHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKFL
                                                                                                                                                           LHSQGIIYRDLKPENIMLSSQCHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEILVRS
                                                                                                                                                                                                              SVKHPFIVELAYAPQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLABITLALGH
                                                                                                                                       LHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEILVRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          KRNPSQRIGGGPGDAADVQRHPFFRHMN 345
                                                                   GHNRAVDWWSLGALMYDMLTGSPPFTABNRKKTMDKI IRGKLALPPYLTPDARDLVKKFL
                                                                                                                                                                                                                                                                                  HCFELLRVLGKGGYGKVFQVRKVQGTMLGKI YAMKVLRKAKI VRNAKOTAHTRAERNI LE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QIPVDSPDDTTLSESANLIFQGETYVAPSILEDMHR--ANRMPARSPRR---TPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09430564
                                                                                                                                                                                                                                                                                                                                                  54.1%; Score 1415; DB 4; I larity 100.0%; Pred. No. 8.3e-110; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                         Length 268;
                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            424
                                                                                                                                                                                                                120
                                                                     240
                                                                                                     317
                                                                                                                                         180
                                                                                                                                                                            257
                                                                                                                                                                                                                                                  197
                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                     137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             374
```

```
RESULT 9
US-09-430-564-6
                                                                                                                                                                                                                                    믾
                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                            몽
                                                                                                                                                                                                                                                                                                                                                                                                          Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                       路
                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                    멂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-749-902-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
Matches 282
                                                   Sequence 6, Application Patent No. 6372467
                                    GENERAL INFORMATION:
   APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO: 3:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IMMEDIATE SOURCE:
CLONE: Consens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM Compat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 495 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0150 US
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FILING DATE:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/08/7/FILING DATE: Filed Herewith PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPHONE:
                                                                                                                                                              449
                                                                                                                                                                                                459
                                                                                                                                                                                                                                  389
                                                                                                                                                                                                                                                                     399
                                                                                                                                                                                                                                                                                                       329
                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                            269
                                                                                                                                                                                                                                                                                                                                                                                                                279
                                                                                                                                                                                                                                                                                                                                                                                                                                                    209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    198 LHSQGIIYRDLKPENIMLSSQGH---IKLTDFGLCKESIHEGAVTH-----TFCGTIE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            al Similarity
282; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                       GFTYVAPSVLDSIKEGFSFQPKLRSPRRINSSPRVPVSPLKFSPFEGFRPSPSLPEPTEL
                                                                                                                                                                                                                                                                                                       PFFRHMMDDLLAMRVDPPFRPCLQSEEDVSQFDTRFTRQTPVDSPDDTALSESANQAFL
                                                                                                                                                                                                                                                                                                                            PFFRHMWDDLLAWRVDPPFRPCLQSEEDVSQFDTRFTRQTPVDSPDDTALSESANQAFL
                                                                                                                                                                                                                                                                                                                                                                              SPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKFLKRNPSQRIGGGPGDAADVQRH
                                                                                                                                                                                                                                                                                                                                                                                                 SPPFTAENRKKTMDKI IRGKLALPPYLTPDARDLVKKFLKRNPSQRIGGGPGDAADVQRH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       YMAPEI ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LIEF-----FEEEURFYLVFEKMRGGSILSHIHKRRHFNELEASVVVQDVASALDF 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLABITLALGH 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LGKGGYGKVFQVRKVQGTNL--GKIYAMKVLR-----KAKIVRNAKDTAHTRAERNILE 137
                                                                                                                                                            PLPPLLPPPPPSTTAPLPIRPPSGTKKSKRGRGRPGR
                                                                                                                                                                                            PLPPLLPPPPPSTTAPLPIRPPSGTKKSKRGRGRPGR 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                  YMAPEVVEAFSEEASIYDKRCDLWSLGVILYILLSGYPPFVGRWWQRLRLGPLMYDMLTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LHNKGIAHRDLKPENILCEHPNQVSPVKICDFDLGSGIKLNGDCSPISTPELLTPCGSAB
                                                                                                                                                                                                                                  GFTYVAPSVLDSIKEGFSFQPKLRSPRRENSSPRVPVSPLRFSPEGFRPSPSLPEPTEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LGEGAHARVQTC----INLITSQEYXVXIIXFFXGHIRSRVFREVEMLYQCQGHRNVLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Consensus
John Blenis
Kay K. Lee-Fruman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         53.0%; Score 1385.5; DB 2; Length 495; 61.7%; Pred. No. 5.3e-107; ative 39; Mismatches 75; Indels 61;
                                                                      US/09430564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US/08/749,902
                                                                                                                                                              485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61;
```

9

```
RESULT 10
US-09-031-295-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-430-564-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 2, Application US/09031295
Patent No. 6326181
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE:
SEQ ID NO 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Calvin J. Kuo
TITLE OF INVENTION: P5956K AND P8586K GENES, PROTEINS,
TITLE OF INVENTION: PRINCES, PROBES, AND DETECTION METHODS
FILE REFERENCE: 00246/506002
CURRENT APPLICATION NUMBER: US/09/430,564
CURRENT FILING DATE: 1999-10-29
PRIOR APPLICATION NUMBER: 60/105,141
PRIOR PILING DATE: 1998-10-29
PRIOR FILING DATE: 1998-10-29
RIOR FILING DATE: 1998-10-29
RIOR FILING DATE: 1998-10-29
RIOR FILING DATE: 1998-10-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
                                                             FILING DATE: 28-FEB-1997
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                  COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/031,29:
FILING DATE: 26-FEB-1998
                                                                                                                                                                                                                                                                                               COUNTRY: U.S.A.
ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                               CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE 197-08-173.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: LANG, Florian
APPLICANT: WALDEGGER, Tubingen
TITLE OF INVENTION: CELL VOLUME-REGULATED HUMAN KINASE H-SGK
NUMBER OF SEQUENCES: 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: FOLEY & L
NAME: Sandercock, Colin G. REGISTRATION NUMBER: 31,298 REFERENCE/DOCKET NUMBER: 05
                                                                                                                                                                                                                                                                                                                                                                                                  STREET: 3000 K St
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 KRNPSQRIGGGPGDAADV 258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          318 KRNPSQRIGGGPGDAADV 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            258 GHNRAVDWWSLGALWYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121 LHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEILVRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               198 LHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEILVRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              138 SVKHPFIVELAYAPQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             258;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61 SVKHPPIVELAYAPQIGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLABITLALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  78 HCFELLRVLGKGGYGKVFQVRKVQGTNIJGKIYAMKVLRKAKIVRNAKDTAHTRABRNILE 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           h 51.8%; Score 1354; DB 4; Similarity 100.0%; Pred. No. 9.2e-105; 58; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                D.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GHNRAVDWWSLGALMYDMLTGSPPFTABNRKKTMDKI IRGKLALPPYLTPDARDLVKKFL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HCFELLRYLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRABRNILE
                                                                                                                                                                                                                                                                                                                                                                                                                              E: FOLBY & LARDNER 3000 K Street, N.W.
                                                                                                                                                                                           us/09/031,295
  058315/0123
                                                                                                                                                                                                                                         Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 258;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
```

```
Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 11
US-08-712-709-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; MOLECULE TYPE: protein US-09-031-295-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEPAX: (202) 672-5399
INPORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 431 amino acids
TYPE: amino acid
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 5, Application US/08712709
Patent No. 5863780
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                  SOPTWARE: PASTSEQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/712
FILING DATE: Filed Herewith
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                     ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Hawkins, Phillip R.
                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                              FITLE OF INVENTION:
                                                                                                                                                 COMPUTER: IBM CON
OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                   STREET: 3174 FOR CITY: Palo Alto
                                                                                                                                                                                                                                      COUNTRY: U.S.
ZIP: 94304
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE:
                                                                                                                                                                                                                                                                                                                                     ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            107
              STRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33 EPELSPADACPLABLRAAGLEPVGHYEEVELTETSVNVGPERIGPHC----FELLRVLGK 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      KSPDSVLVTASVKEAAEAFLGPSYAPPT 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DSPDD---TALSESANQAFLGFTYVAPS 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAKDDFMEIKSHVFFSLINWDDLINKKITPPFNPNVSGPNELRHFDPEFTEE-PVPNSIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      egpgdaadvorhpffrhywddilawrvdpffrpcloseedvsofdtrftrotpv----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLGAVLYEMLYGLPPFYSRNTAEMYDNILNKPLQLKPNITNSARHLLEGLLQKDRTKRL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLGALMYDMLTGSPPFTABNRKKTMDKIIRGKLALPPYLTPDARDLVKKFLKRNPSORIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DLKPENILLDSQGHIVLIDFGLCKENIEHNSTTSTFCGTPEYLAPEVLHKQPYDRTVDWN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DLKPENIMLSSQCHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEILVRSGHNRAVDWW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LHFSFQFADKLYFVLDYINGGELFYHLQRERCFLBPRARFYAABIASALGYLHSLNIVYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLABITLALGHLHSQGIIYR 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GSFGKVLLARHKABEV----FYAVKVLQKKAILKK-KEEKHIMSERNVLLKNVKHPFLVG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGYGKVFQVR-KVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAERNI-LESVKHPFIVE 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EPELMMANPSP-----PPSPSQQ-----INLGPSS-NPHAKPSDFHFLKVIGK 106
                                                                                                                                                                                                                                                                            ß
                                                                                                                                                                                                                                                                                                                E: Incyte Pharmaceuticals,
3174 Porter Drive
                                                                                                                                                      PB: Diskette
IBM Compatible
SYSTEM: DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (202) 672-5300
                                                                                                                                                                                                                                                                                                                                                                                                 NOVEL HUMAN PROTEIN KINASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30.9%; Score 806.5; DB 4;
44.3%; Pred. No. 5.7e-59;
tive 66; Mismatches 111;
                                                                                             US/08/712,709
PF-0118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  111; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         221
```

```
S
                                8
                                                                           멼
                                                                                                                                                   밁
                                                                                                                                                                                    Ś
                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLONE: 1
US-08-712-709-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 30.7%; Score 802.5; DB 2; Best Local Similarity 44.3%; Pred. No. 1.2e-58; Matches 172; Conservative 65; Mismatches 112:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TOPOLOGY: line MOLECULE TYPE: po IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
400 KSPDSVLVTASVKEAAEAFLGFSYAPPT 427
                                    382
                                                                           341
                                                                                                               327
                                                                                                                                                   282
                                                                                                                                                                                          267
                                                                                                                                                                                                                              222
                                                                                                                                                                                                                                                                   207
                                                                                                                                                                                                                                                                                                   162 LHFSFQTADKLYFVLDYINGGELFYHLQRERCFLEPRARSYAAEIASALGYLHSLNIVYR
                                                                                                                                                                                                                                                                                                                                        147 LAYAFOTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGHLHSQGIIYR 206
                                                                                                                                                                                                                                                                                                                                                                                107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              33 EPELSPADACPLAELRAAGLEPVGHYEEVELTETSVNVGPERIGPHC----FELLRVLGK 88
                                                                                                                                                                                                                                                                                                                                                                                                                     89 GGYGKVFQVR-KVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRABRNI-LESVKHPFIVB 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                           65 EPELMNANPSP------PPSPSQQ-----INLGPSS-NPHAKPSDFHFLKVIGK 106
                                    DSPDD---TALSESANQAFLGFTYVAPS 406
                                                                                                                                                   CLGAVLYEMLYGLPPFYSRNTAEMYDNILNKPLQLKPNITNSARHLLEGLLQKDRTKRL-
                                                                                                                                                                                        SIGALMYDMLTGSPPFTAENRKKIMDKIIRGKLALPPYLTPDARDIVKKFLKRNPSQRIG
                                                                                                                                                                                                                              DIKPENILIDSQGHIVLTDFGLCKENIEHNSTTSTFCGTPBYLAPEVLHKQPYDRTVDWW
                                                                                                                                                                                                                                                           DLKPENIMLSSQGHIKLTDFGLCKESIHBGAVTHTFCGTIBYMAPBILVRSGHNRAVDWW 266
                                                                                                                                                                                                                                                                                                                                                                              GSFGKVLLARHKAEEV----FYAVKVLQKKAILKK-KEEKHIMSERNVLLKNVKHPFLVG
                                                                                                             GGPGDAADVQRHPEFRHMNWDDLLAWRVDPPFRPCLQSBEDVSQFDTRFTRQTPV-----
                                                                           GAKODFMEIKSHVFFSLINWODLINKKITPFFNPMVSGPNDLRHFDPEFTEE-PVPNSIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   431 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ن.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
```

381

340

326 281 161

US-09-111-444-5 Sequence 5, Application US/09111444
Patent No. 6045792 GENERAL INFORMATION: COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/111,
FILING DATE: COMPUTER READABLE FORM: MEDIUM TYPE: Diskette APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Hawkins, Phillip R.
TITLE OF INVENTION: NOVEL HUMAN PROTEIN KINASES
NUMBER OF SEQUENCES: 9 CORRESPONDENCE ADDRESS STREET: ZIP: COUNTRY: ADDRESSEE: 94304 Palo Alto ς E: Incyte Pharmaceuticals, 3174 Porter Drive U.S. US/09/111,444

```
RESULT 13
US-09-541-228-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                    US-09-111-444-5
                                                                                                                                                                          Sequence 5, Application US/09541228
Patent No. 6232077
GENERAL INFORMATION:
APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 172; Conserv
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO:
                                         STREET: 31.
CITY: Palo Alto
STATE: CA
STATE: TI.S.
              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MOLECULE TYPE: PI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 431 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
                            CITY: Palo
STATE: CA
COUNTRY: U.
ZIP: 94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TOPOLOGY: 1in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                                                                                                                             382
                                                                                                                                                                                                                                                                                                                                                                           341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 222
                                                                                                                                                                                                                                                                                                                 400
                                                                                                                                                                                                                                                                                                                                                                                                      327
                                                                                                                                                                                                                                                                                                                                                                                                                                     282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>გ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           33
                                                                                                                                                                                                                                                                                                                                       DSPDD---TALSESANQAFIGFTYVAPS 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGHLHSQGIIYR
                                                                                                                                                                                                                                                                                                                 KSPDSVLVTASVKEAAEAFLGFSYAPPT 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKFLKENPSORIG 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGYGKVFQVR-KVQGTNLGKIYAMKVLRXAKIVRNAKDTAHTRAERNI-LESVKHPPIVB 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        amino acid
                                                                                                                                                                                                                                                                                                                                                                        GAKODFMEIKSHVFFSLINWODLINKKITPFFNPNVSGPNDLRHFDPEFTEE-PVPMSIG
                                                                                                                                                                                                                                                                                                                                                                                                                                   CLGAVLYEMLYGLPPFYSRNTAEMYDNÍLNKPLQLKPNITNSÅRHLLEGLLQKDRTKRL-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DLKPENILLDSQGHIVLTDFGLCKENI EHNSTTSTFCGTPEYLAPEVLHKQPYDRTVDWW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DIKPENIMISSOCHIKLTDFGICKESTHEGAVTHTFCGTTEYMAPETIVRSGHNRAVDWW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LHFSPQTADKLYFVLDYINGGELFYHLQRERCFLEPRARSYAABIASALGYLHSLNIVYR
                                                                                                                                                                                                                                                                                                                                                                                                   GGPGDAADVQRHPFFRHMNWDDLLAWRVDPPFRPCLQSEEDVSQFDTRFTRQTPV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EPBLMNANPSP-----PPSPSQQ-----INLGPSS-NPHAKPSDFHFLKVIGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EPELSPADACPLAELRAAGLEPVGHYEEVELTETSVNVGPERIGPHC----FELLRVLGK 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Consensus
                                                                                     E: Incyte Pharmaceuticals,
3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30.7%; Score 802.5; DB 3;
44.3%; Pred. No. 1.2e-58;
ative 65; Mismatches 112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08/712,709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ū
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PF-0118
                                                                                                                                                PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                KINASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             106
                                                                                                                                                                                                                                                                                                                                                                                                     381
                                                                                                                                                                                                                                                                   닭
                                                                                                                                                                                                                                                                                            δ
                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                댏
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                      Sequence 9, Application US/08712709
Patent No. 5863780
GENERAL INFORMATION:
APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Hawkins, Phillip R.
TITLE OF INVENTION: NOVEL HUMAN PROTEIN KINASES
NUMBER OF SEQUENCES: 9
            CORRESPONDENCE
```

밁

Ś

Ś

ADDRESS

밁

Ş

8 Ş 닭 Ś DΌ Ś Ś

```
CRESULT 14
US-08-712-709-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-541-228-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 172;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity 44.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/09/541,228
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/712,709
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LIBRARY:
CLONE: Consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
TOPOLOGY: lir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ Version 1.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDIUM TYPE:
COMPUTER: IF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
                                                                                                                                382
                                                                                                                                                                                                                        327
                                                                                       400 KSPDSVLVTASVKEAAEAFLGFSYAPPT 427
                                                                                                                                                                                                                                                                   282 CLGAVLYEMLYGLPPFYSRNTAEMYDNILNKPLQLKPNITNSARHLLEGLLQKDRTKRL-
                                                                                                                                                                                                                                                                                                         267 SIGALMYDMITGSPPFTAENRKKIMDKIIRGKLALPPYLTPDARDIVKKFIKRNPSQRIG
                                                                                                                                                                                                                                                                                                                                                        222 DIKPENILLDSOGHIVLIDFGLCKENIEHNSTTSTFCGTPEYLAPEVLHKQPYDRTVDWW
                                                                                                                                                                                                                                                                                                                                                                                                   207 DLKPENIMLSSQGHIKLTDPGLCKSSIHEGAVTHTFCGTIEYMAPEILVRSGHNRAVDWW
                                                                                                                                                                                                                                                                                                                                                                                                                                              162 LHFSFQTADKLYFVLDYINGGELFYHLQRERCFLEPRARSYAAEIASALGYLHSLNIVYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          147 LAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLABITLALGHLHSQGIIYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      107 GSFGKVLLARHKABEV----FYAVKVLQKKAILKK-KEBKHIMSBRNVLLKNVKHPFLVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                89 GGYGKVFQVR-KVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAERNI-LESVKHPFIVB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              65 EPELMNANPSP-----PPSPSQQ-----INLGPSS-NPHAKPSDPHPLKVIGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33 EPELSPADACPLAELRAAGLEPVGHYEEVELTETSVNVGPERIGPHC----FELLRVLGK
                                                                                                                                DSPDD---TALSESANQAFLGFTYVAPS 406
                                                                                                                                                                             GAKDDFMEIKSHVFFSLINWDDLINKKITPPFNPNVSGPNDLRHFDPBFTEE-PVPNSIG 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid
                                                                                                                                                                                                            GGPGDAADVQRHPFFRHMWWDDLLAWRVDPPFRPCLQSBBDVSQFDTRFTRQTPV-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         431 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         415-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; Score 802.5; DB 3; 
; Pred. No. 1.2e-58; 
65; Mismatches 112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PF-0118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
```

89

161 146 106

206

340 326 266 221

```
RESULT 15
US-09-111-444-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLONE: 1
US-08-712-709-9
                               Sequence 9, Application Patent No. 6045792 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 430 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: pe
IMMEDIATE SOURCE:
LIBRARY: GenBar
CLONE: 294637
 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE: Filed Herew: ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FASTESEO VERSION 1.5
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 3174 Porter Drive CITY: Palo Alto COUNTPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: amino acid
STRANDEDNESS: sir
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0118 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 94304
                                                                                                                                                            66E
                                                                                                                                                                                                                                                                                                                                                                                                                                            162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         174;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ტ
ტ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Similarity
                                                                                                                                                          RSPDSILVTASVKEAAEAFLGFSYAPP--MDS
                                                                                                                                                                                                                             CAKDDEWEIKSHIFFSLINWDDLINKKITPPFNENVSGPSDLRHFDPEFTEE-PVPSSIG
                                                                                                                                                                                                                                                               GGPGDAADVQRHPFFRHMWDDLLAWRVDPPFRPCLQSEEDVSQFDTRFTRQTPVD----
                                                                                                                                                                                                                                                                                                 CLGAVLYEMLYGLPPFYSRNTAEMYDNILNKPLQL-KNITNSARHLLEGLLQKDRTKRL-
                                                                                                                                                                                                                                                                                                                      SLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKFLKRNPSQRIG
                                                                                                                                                                                                                                                                                                                                                                       DLKPENILLDSQGHIVLTDFGLCKENIEHNGTTSTFCGTPEYLAPEVLHKQPYDRTVDww
                                                                                                                                                                                                                                                                                                                                                                                               DLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIBYMAPBILVRSGHNRAVDWW
                                                                                                                                                                                                                                                                                                                                                                                                                                        LHFSPQTADKLYFVLDYINGGELFYHLQRERCFLEPRARFYAAEIASALGYLHSLNIVYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGHLHSQGIIYR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GSFGKVLLARHKAEEA----FYAVKVLQKKAILKK-KEEKHIMSERNVLLKNVKHPFLVG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGYGKVFQVR-KVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRABRNI-LBSVKHPFIVB 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EPELMNANPSP-----PPSPSQQ-----INLGPSS-NPHAKPSDFHFLKVIGK 106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     EPELSPADACPLAEIRAAGLEPVGHYEEVELTETSVNVGPERIGPHC----FELLRVLGK 88
                                                                                                                                                                                           -SPDD---TALSESANQAFLGFTYVAPSVLDS 410
Au-Young, Janice
Guegler, Karl J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             U.S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GenBank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Filed Herewith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30,38;
                                                                     US/09111444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/08/712,709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Score 791; DB 2; Length 430; Pred. No. 1.1e-57; 64; Mismatches 112; Indels
                                                                                                                                                          428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                               382
                                                                                                                                                                                                                                                                                                 339
                                                                                                                                                                                                                                                                                                                                   326
                                                                                                                                                                                                                                                                                                                                                                     281
                                                                                                                                                                                                                                                                                                                                                                                                        266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            206
                                                                                                                                                                                                                                                                                                                                                                                                                                          221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14;
                                                                                                                                                                     B
                                                                                                                                   Ś
                                                                                                                                                                                                       S
                                                                                                                                                                                                                                            뮍
                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-211-444-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: lines
MOLECULE TYPE: pe
IMMEDIATE SOURCE:
LIBRARY: GenBar
CLONE: 294637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: PastSEQ Version 1.5
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Hawkins, Phillip R.
TITLE OF INVENTION: NOVEL HUMAN PROTEIN KINASES
NUMBER OF SEQUENCES: 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZIP: 94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 3174 Por
CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
                                   399
                                                                     383
                                                                                                     340
                                                                                                                                       327
                                                                                                                                                                         282
                                                                                                                                                                                                           267
                                                                                                                                                                                                                                              222
                                                                                                                                                                                                                                                                              207
                                                                                                                                                                                                                                                                                                                162
                                                                                                                                                                                                                                                                                                                                                  147
                                                                                                                                                                                                                                                                                                                                                                                      107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tch 30.3%; Score 791; DB 3; al Similarity 44.4%; Pred. No. 1.1e-57; 174; Conservative 64; Mismatches 112
                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ω
Ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         33 EPELSPADACPLAELRAAGLEPVGHYEEVELTETSVNVGPERIGPHC----FELLRVLGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         amino acid
                                                                                                                                                                                                                                                                                                                                                                                                        GGYGKVFQVR-KVQGTNLGKIYAMKVIRKAKIVRNAKDTAHTRAERNI-LESVKHPFIVS 146
                                   RSPDSILVTASVKEAAEAFLGESYAPP--MDS
                                                                                                                                   GGPGDAADVQRHPFFRHMNWDDLLAWRVDPPFRPCLQSBEDVSQFDTRFTRQTPVD----
                                                                                                                                                                         CLGAVLYEMLYGLPPFYSRNTAEMYDNILNKPLQL-KNITNSARHLLEGLLQKDRTKRL-
                                                                                                                                                                                                         SIGALMYDMITGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKFLKRNPSQRIG 326
                                                                                                                                                                                                                                              DIKPENILIDSQGHIVLTDFGICKENIEHNGTTSTFCGTPEYLAPEVLHKQPYDRTVDWW
                                                                                                                                                                                                                                                                     DLKPENIKLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEILVRSGHNRAVDWW
                                                                                                                                                                                                                                                                                                              LAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGHLHSQGIIYR 206
                                                                                                                                                                                                                                                                                                                                                                                      GSFGKVLLARHKABEA----FYAVKVLQKKAILKK-KBEKHIMSERNVLLKNVKHPFLVG 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                             EPELMMANPSP----
                                                                 -SPDD---TALSESANQAFLGFTYVAPSVLDS
                                                                                                       GAKDDEMEIKSHIFFSLINWDDLINKKITPPENPNVSGPSDLRHFDPEFTEE-PVPSSIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            430 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B: Incyte Pharmaceuticals,
3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                415-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenBank
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    u.s.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08/712,709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US/09/111,444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PF-0118 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                         PPSPSQQ-----INLGPSS-NPHAKPSDFHFLKVIGK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches 112;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 3; Length 430;
                                                                   410
                                 428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
```

ð &

맑 8 B Ś

266 221

281

382

106

14:

5 밁 δ

. p\*\*

Search completed: June 30, 2004, 17:15:19 Job time : 25 secs

```
Minimum
Maximum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Run
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Total number
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
          1104.24
11104.24
1200.88
593.46
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.88
260.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   July
          682709 seqs, 277475446 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY NUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-762-258-1
1816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Minimum Match 0%
Maximum Match 100%
Listing first 45 sn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Issued Patents NA: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version
Copyright (c) 1993 - 2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
/cgn2_6/ptodata/2/ina/5B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6A_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3, 2004, 08:42:56 ; Search time 146 Seconds
(without alignments)
6902.677 Million cell updates/sec
             몺
      US-09-430-564-1
US-08-76-316-10
US-08-749-302-4
US-08-749-302-4
US-09-016-434-118
US-09-016-434-118
US-09-017-310-1
US-09-417-197-138
US-09-417-197-131
US-09-254-45-1
US-09-254-45-1
US-09-254-45-1
US-09-167-322-3
US-09-34-455-35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5.1.6
Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1365418
                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Description
1, Appli
4, Appli
10, Appli
118, App
118, Appli
10, Appli
11, Appli
12, Appli
13, Appli
14, Appli
15, Appli
16, Appli
17, Appli
18, Appli
18, Appli
18, Appli
18, Appli
19, Appl
```

29 198.6 10.9 2311 3 US-09-111-444-6 31 198.6 10.9 2311 3 US-09-111-444-6 32 198.6 10.9 2311 3 US-09-111-295-1 33 197 10.8 2370 4 US-09-031-295-1 34 195.6 10.7 2104 4 US-09-031-295-1 35 193.6 10.7 2104 4 US-09-03-655-1361 36 193.6 10.7 2104 4 US-09-023-655-1361 37 186.4 10.3 3321 4 US-09-023-655-1361 38 184 10.1 2751 4 US-09-023-655-1361 39 173.8 9.6 2754 3 US-09-427-322-3 40 168 9.3 2245 4 US-09-225-749-24 41 168 9.3 2245 4 US-09-23-655-1362 42 166.8 9.2 1276 5 PCT-US91-02714-24																		
10.9 2311 3 10.9 2311 3 10.9 2311 3 10.8 2370 4 10.7 2399 6 10.7 2104 4 10.1 3 2370 4 10.1 3 2370 4 9.6 2751 4 9.6 2751 4 9.3 2245 4 9.3 2245 4 9.3 2146 4 9.3 2146 5	25	4	Ç,	23	j=1	0	9	8	37	8	35	34	33	32	3	3	29	ť
23311 23311 23311 23311 23311 23311 23104	166.8	166.8	168	168	168	169	173.8	184	186.4	193.6	193.6	195.6	197	198.6	198.6	198.6	198.6	
	9.2	9.2	9.3	9.3	9.3	9.3	9.6	10.1	10.3	10.7	10.7	10.8	10.8	10.9	10.9	10.9	10.9	
	1276	1276	2201	2146	2146	2245	2754	2751	3321	2104	2104	2599	2370	2311	2311	2311	2311	
US-09-111-444-6 US-09-111-444-6 US-09-111-444-6 US-09-111-434-772 US-09-016-434-772 US-09-031-295-1 10S-09-023-655-1191 US-09-023-655-1361 US-09-427-122-3 US-09-427-302-1 US-09-847-307-1 US-09-848-307-1 US-09-848-307-1 US-09-856-921-52 US-09-66-921-52 US-09-66-931-52 US-09-66-931-52 US-09-566-931-52 US-09-566-931-52 US-09-566-931-52 US-09-566-931-52	ហ	H	4	*	£,	44	w	4	4.	4	ω	6	4	4	w	w	Ŋ	
	PCT-US91-02714-24	US-07-688-352C-25	US-09-566-921-52	US-09-023-655-1362	US-09-842-307-1	US-09-225-749-24	US-09-429-322-3	US-09-417-197-72	US-09-023-655-1361	US-09-023-655-1191	US-09-313-930-1	5266464-1	US-09-031-295-1	US-09-016-434-772	US-09-541-228-6	US-09-111-444-6	US-08-712-709-6	くい くり ひしま おひひ 上記
	14, Appl	25, Appl	52, Appl	1362, Ap	1, Appli	24, Appl	3, Appli	72, Appl	1361, Ap	1191, Ap	1, Appli	Patent No. 5266464	1, Appli	772, App	6, Appli	6, Appli	6, Appli	ナゴマ こででト

## ALIGNMENTS

RESULT 1 US-09-430-564-1

```
APPLICANT: John Blenis
APPLICANT: Kay K. Lee-Fruman
APPLICANT: Kay K. Lee-Fruman
APPLICANT: CAIVIN J. Kuo
TITLE OF INVENTION: P5456K AND P8556K GENES, PROTEINS,
TITLE OF INVENTION: PFIMERS, PROBES, AND DETECTION METHODS
FILE REFERENCE: 00246/506002
CURRENT APPLICATION NUMBER: US/09/430,564
CURRENT FILING DATE: 1999-10-29
PRIOR APPLICATION NUMBER: 60/106,141
PRIOR APPLICATION NUMBER: 60/106,141
PRIOR FILING DATE: 1998-10-29
NUMBER OF SEQ ID NOS: 16
SOPTMARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 1732
                                                                                                                                                                              Ş
                         5
                                                                      뮹
                                                                                                   Ś
                                                                                                                                          片
                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-430-564-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application Patent No. 6372467 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 94.9%; Score 1724; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1724; Conservative 0; Mismatches
                                 389
                                                                      249
                                                                                                           329
                                                                                                                                              189
                                                                                                                                                                                 269
                                                                                                                                                                                                                       129
                                                                                                                                                                                                                                                          209
                                                                                                                                                                                                                                                                                                               149 GAGGAAGGCAGGGCGAGGGCGAGGCCAGAGCCTCAGCCCCGCGGGACGCATGTCCCCCTT
                                                                                                                                                                                                                                                                                             69
                                                                                                                                                                                                                                                                                                                                                                                         89 CGACGGGCCCGCCGGCGCCCCCATGGCGGCCGTTTTTGGATTTTGGATTTTGGAGACG
                                                                                                                                                                                                                                                                                                                                                                     9
                   TTGGGCAAAATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATGCCAAG
                                                                                         GTGCTGGGCAAGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAAC
                                                                                                                                                                    GAGACCAGCGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGT
                                                                                                                                                                                                                                        GCCGAGTTGAGGGCAGCTGGCCTAGAGCCTGTGGGACACTATGAAGAGGGTGGAGCTGACT
                                                                                                                                              GAGACCAGOGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGT
                                                                                                                                                                                                                   GCCGAGTTGAGGGCAGCTGGCCTAGAGCCTGTGGGACACTATGAAGAGGTGGAGCTGACT
                                                                                                                                                                                                                                                                                           GAGGAAGGCAAGGGCGAGGGCGAGCCAGAGCTCAGCCCCGGGGACGCATGTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                  CGACGGGCCCGGGGGCGCCGCCATGGCGGCCGTGTTTGATTTGGATTTGGAGACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US/09430564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                          0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1732;
                                                                                                                                                                                                                                                                                                                                                                                                                                            0
                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                   448
368
                                                                      308
                                                                                                           388
                                                                                                                                              248
                                                                                                                                                                                 328
                                                                                                                                                                                                                     188
                                                                                                                                                                                                                                                                                                                              208
                                                                                                                                                                                                                                                          268
                                                                                                                                                                                                                                                                                             128
                                                                                                                                                                                                                                                                                                                                                                     83
                                                                                                                                                                                                                                                                                                                                                                                                       148
```

Query Match	1389 CCACCGCCGCCCTCGACCACCGCCCCTCTCCCCATCCGTCCCCCCTCAGGGACCAAG 1448
US-08-966-316-1	1469 CCACCGCCGCCCTCGACCACCGCCCTCTCCCCATCCGTCCCCCCTCAGGGACCAAG 1528
TOPOLOGY IMMEDIATE LIBRARY: CLONE:	1409 GGTTTCGGCCCAGCCCGGCCGGAGCCGAGGCGAGCTACCTCTACCTCCACTCCTG 1468
SEQUENCE C LENGTH: TYPE: n STRANDED;	1349 AGGCGCCTCAACAGTAGCCCCCGGGTCCCCGGTCAGCCCCTCAAGTTCTCCCCTTTTGAG 1408
TELEPHON TELEFAX: TELEX: INFORMATION	1289 CCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTCACCC 1348
NAME: B REGISTRA REFERENC	1229 GATGACACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATACGTGGCG 1288
PRIOR APPL APPLICAT FILING D ATTORNEY/A	1169 GAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAGTCCT 1228
CURRENT APPLICATE FILING D	1109 AATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCAGTCA 1168
	1049 ATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATG 1108
STATE: COUNTRY: ZIP: 94	989 CTCACCCCAGATGCCCGGGACCTTGTCAAAAAGTTTCTGAAAAGGAATCCCAGCCAG
CORRESPOND STREET:	929 GAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCCTAC 988 
APPLICANT: APPLICANT; APPLICANT; ITTLE OF I	869 TGGTGGAGCCTGGAGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCCTTTACCGCA 928
GENERAL INFO APPLICANT: APPLICANT:	809 ACCATTGAGTACATGGCCCCTGAGATTCTGGTGCCCAGTGGCCACAACCGGGCTGTGGAC 868
RESULT 2 US-08-966-316-1 ; Sequence 10,	749 GACTTIGGACTCTGCAAGGAGTCTATCCATGAGGGCGCCGTCACTCAC
Db 1689 C	689 TACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACC 748
	629 TGCTTCTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCCACTCCCAGGCCATCATC 688
Db 1569 C	569 AGYGGIGGGAGCTCTTCACGCATCTGGAACGATCTTCCTGGAAGATACGGCC 628
Qy 1649 C	29
	09 GTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTTCTACCTCATCCTTGAGTGCCTC
	449 GACACAGCACACACAGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATT 508
l Ov 1529 #	

당

片

S

ঠ, 유 *청* 

밁

Ş

밁

성 유

B

```
Best Local Similarity
                                             : 1869688
:-10
                                                                                                                                                                                                                                                                                                                                                         READABLE FORM:

IM TYPE: Diskette
ATING SYSTEM: DOS
ARRE: FASTEM: DOS
ARRE: FASTEM: DOS
ICATION NUMBER: US/08/966,316
ICATION NUMBER: US/08/966,316
ICATION DATA:
REPLICATION NUMBER:
                                                                                                                                              N FOR SEQ ID NO: 1
CHARACTERISTICS:
1: 1637 base pairs
nucleic acid
                                                                                                                                                                                                                             (/AGENT INFORMATION:
Billings, Lucy J.
Billings, Lucy J.
RATION NUMBER: 36,749
INCE/DOCKST NUMBER: PF-CUNICATION INFORMATION:
JONE: 650-855-055
LX: 650-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DENCE ADDRESS:

DEE: Incyte Pharmaceuticals,

3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORMATION:

(r. Au-Young, Janice

(r. Reddy, Roopa

(r. Murry, Lynn E.

(r. Murry, Lynn E.

(r. Mathur, Preete

INVENTION: SIGNAL PEPTIDE - CONTAINING PROTEINS

SEQUENCES: 18
                                                                                                              DNESS: single
Y: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTGTGCCCCTGAATGATGGGCACGGAGGGCCGCCGCCACACCCCGGGCTCAACTGCTC 1768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Application US/08966316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTTGAGCCCTGTCCCTGCGGCTGTGAGAGCAGCAGGACCCTGGGCCAGTTCCAGAGAC 1648
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGTCCAAGAGGGCCGTGGGCGTCCAGGGCGCTAGGAAGCCGGGTGGGGGTGAGGGTAG 1588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTTGAGCCCTGTCCCTGCGGCTGTGAGAGCAGCAGGACCCTGGGCCAGTTCCAGAGAC 1568
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
 60.8%;
98.8%;
                                                                                                                                                                                                10:
                                                                                                                                                                                                                                                                              PF-0424 US
 Score 1104.4; DB 2;
Pred. No. 4.5e-249;
                 Length 1637;
```

Matches 1196;

Conservative

0

```
ACGACCTTCTGGCCTGTGTGGACCCCCCCTTTC-AGGCCCCTGTCTGCAGTCAGAGGAG 1174
                                                                                                                                                                                                                                                                                                       GAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACCTCCCCCTACCTCACCC
                                                                                                                                                                                                                                                                                                                                                                                                    GTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTGGG
                                                                                                                                                                                                       GGAAGAAAACCATGGATAAGATCATCAGGGGGCAAGCTGGCACTGCCCCCCTACCTCACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACTOTGCAAGGAGTCTATCCATGAGGGCGCCGTCACTCACACCTTCTGCGGCACCATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACCGACTFTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACGATCAAACTGACCGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCACTCCCAGGGCATCATCTACCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCCACTCCCAGGGCATCATCTACCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGCCTATGCCTICCAGACTGGTGGCAAACTCTACCTCATCCTT-GAGTGCCTCAGTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGGATTGCCTCAGTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATGCCAAGGACACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATGCCAAGGACACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAGGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCTGCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGCGAGGGCGAGCCAGAGCTCAGCCCCGCGGACGCATGTCCCCTTGCCGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGCGAGGGCGAGGCGAGGCCAGAGCCCCGCGGACGCATGTCCCCTTGCCGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCGCGGGGCCGCCATGGCCGTGTTTGAATTTGGAATTTGGAGACGGAGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAAGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGTGTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCGGGGCCCGCCATGGCGGCCGTGTTTGATTTGGATTTGGAGACGGAGGAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ω,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                     1115
                                                                                                                                                                                                                                                       1055
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         875
                                                                                                     1195
                                                                                                                                                                                                    1135
                                                                                                                                                                                                                                                                                                          1075
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                715
                                                                                                                                                                                                                                                                                                                                                         995
                                                                                                                                                                                                                                                                                                                                                                                                         1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                         935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              835
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              æ
                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 734; Conservat
Ś
                                                  먉
                                                                                             Ś
                                                                                                                                                     片
                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                         US-08-749-902-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 3
US-08-749-902-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 1607 base pairs
TYPB: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
CLONE: Consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 4,
Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FeastSEQ Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/749,90
FILING DATE: Filed Herewith
PRIOR APPLICATION NUMBER:
PRIOR APPLICATION NUMBER:
APPLICATION NUMBER:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
APPLICATION NUMBER:
FILING DATE:
APPLICATION NUMBER:
APPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
APPLICANT: Bandman, Olga
APPLICANT: Goli, Surya K.
APPLICANT: Hillman, Jennifer L.
TITLE OF INVENTION: NOVEL HUMAN SERINE/THREONINE
TITLE OF INVENTION: PROTEIN KINASES
NUMBER OF SEQUENCES: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS,
STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STREET:
CITY: Pa
STATE: C
COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1370
                                                                                                                                                       868
                                                                                                                                                                                  874 GAGCCTGGGGGCCCTGATGTACCGACATGCTCACTGGATCGCCGCCCCTTTACCGCAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4, Application
o. 5985635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Palo Alto
                                                                                                  CCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCCTACCTCAC
  GCGGCTGGGACCGCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACCGCAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTCCTGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAG-CCTCAGCGAGAGTGCCAACAAGGCCTTCCTGGGGGTT-ACATAAGTGGCGC-GTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACAGCCCTCAGCGAGAGTGCCCAACCCAGGCCTTCCTGGGCTTCACATACGTGGCGCCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAGTCCTGATGAC 1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GICCIGGACAG
                                                                                                                                                                                                                                                  39.6%;
ilarity 99.1%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US/08749902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/08/749,902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44
                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PF-0150
                                                                                                                                                                                                                                                  Score 720; DB 2; 1
Pred. No. 3.7e-159;
0; Mismatches 6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SD
                                                                                                                                                                                                                                                                                                    Length 1607
                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                  Gaps
1053
                                                                                                                                                       927
                                                                                                                                                                                                    933
                                                  987
                                                                                                     993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1294
```

656 576 596 517 536 457 476 397 416 337 356 277 296 217 236 157 176 97

Ş 밁

1076

S ĝ S В S 문 Ś 문 Ş 밁 Ś 밁 á g Ş 밁 Ś g Ś 8 ð 뮍 S B Ś 문 Ş 문 S

936 986 896 816 836 756 776 969 716

1016 996

S 片 Ś 밁

ð

밁 S 문

밁 Ş 뫊

δ

```
US-09-016-434-126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 126, Application US/09016434
Patent No. 6500938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
                                                                                                                                                        COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS

CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Janice Au-Young
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
NUMBER OF SEQUENCES: 1490
CORRESPONDENCE ADDRESS:
                                                   APPLICATION NUMBER: FILING DATE: HEREWIT CLASSIFICATION: PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                        STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STATE: CALIFORNIA
COUNTRY: USA
ZIP: 94304
   APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGCCCTGTCCCTGCGGCTGT 1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAAGAGGGGCCGTCCAGGGCGCTAGGAAGCCGGGTGGGGGGTGAGGCTAGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCGCCGCCTCGACCACCGCCCTCTCTCCCCCATCCGTCCCCCCTCAGGGACCAAGAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCTCAACAGTAGCCCCCGGGTCCCCGTCAAGTCCTCCCCCTTTTGAGGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAGTCCTGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGA 1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGTGGCCCAGGGGATGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCGGCCCAGCCCAGCCTGCCGAGCCCACGAGCTACCTCTACCTCCACTCCTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               товесссиесствесствесская всеменняем постана подпечение повется подпечение повется подпечение повется подпечение повется подпечение повется повется подпечение повется п
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATACGTGGCGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTCACCCAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACAGCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATACGTGGCGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTCACCCAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INCYTE PHARMACEUTICALS,
                                                                                                                   HEREWITH
                                                                                                                                              US/09/016,434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OF SIGNALING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1047
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-00
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 845-4166
INFORMATION FOR SED ID NO: 126:
SEQUENCE CHARACTERISTICS:
LENGTH: 1607 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LINGTH: 1607 base pairs
TYPE: DUCleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: COLNFET02
CLONE: 1309709
US-09-016-434-126
                                                                                                                                                                                                                                       g<sup>°</sup>
                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         먉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 734;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local Similarity
                                                                                                                                                                                                  1468
                              1594
                                                                                        1528
                                                                                                                                                                                                                                                            1474
                                                                                                                                                                                                                                                                                                                   1408
                                                                                                                                                                                                                                                                                                                                                                         1414
                                                                                                                                                                                                                                                                                                                                                                                                                                1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1114
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          874 GAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTTACCGCAGAGAA
GAGCCCTGTCCCTGCGGCTGT 1614
                                                                                                                                                                                                                                                         GCCGCCGCCTCGACCACCGCCCCTCTCCCCATCCGTCCCCCTCAGGGACCAAGAAGTC 1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTCAACAGTAGCCCCCGGGTCCCCGTCAGCCCCCTCAAGTTCTCCCCCTTTTGAGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTCACCCAGGCG 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CACAGCCCTCAGGGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATACGTGGCGCCGTC 1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAGTCCTGATGA 1233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGA 1173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGGTGGCCCAGGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTTCCGGCACATGAATTG 1113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCTACCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCGGCTGGACCGCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACCGCAGAGAA
                                                                                           CAAGAGGGCCCTGGGCGTCCAGGGCG-TAGGAAGCCGGGTGGGGGGTGAGGGTAGCCCTT
                                                                                                                                        CAAGAGGGCCGTGGGCGTCCAGGGCGCTAGGAAGCCGGGTGGGGGGTGAGGGTAGCCCTT
                                                                                                                                                                                                                                                                                                                                              TCGGCCCAGCCCAGCCTGCCGGAGCCCACGGAGCTACCTCTACCTCCACTCCTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCAACAGTAGCCCCGGGGCCCGTCAGCCCCCCCAAGTTCTCCCCCTTTTGAGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTCACCCAAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATACGTGGCGCCGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAGTCCTGATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGACGACCTTCTGGCCTGGCGTGTGGACCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGTGGCCCAGGGGATGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTNCCCCCCTACCTCAC
                                                                                                                                                                                                                                                                                                                      TCGGCCCAGCCCAGCCTGCCGGAGCCCACGGAGCTACCTCTACCTCCACTCCTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 39.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ,
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PA-0002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 720; DB 4; I
Pred. No. 3.7e-159;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1607;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۳,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
```

. 1167

1287

1227

1107

1047 1053 927

987 993

1593

1586

1473 1407 1413 1347

1467

Ś 밁 Ś 문 Ś 밁 Ś Q 밁

吊

Ś 문

```
맑
                                                                                                              S
                                                                                                                                            뜅
                S
                                                               Ś
                                                                                           밁
                                                                                                                                                                   S
                                                                                                                                                                                            멼
                                                                                                                                                                                                                   $
                                                                                                                                                                                                                                                                                                ; CLONE: 12:
US-09-016-434-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 5
US-09-016-434-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 659 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                            Query Match
Best Local:
                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 118, App
Patent No. 650093
                                                                                                                                                                                                                                                                                            STRANGE: 11100.
TOPOLOGY: 11100.
IMMEDIATE SOURCE:
LIBRARY: BRAINOT11
TONE: 1290913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Janice Au-Young
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF SIGNALING
TITLE OF INVENTION: PATHMAY GENE EXPRESSION
NUMBER OF SEQUENCES: 1490
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
CORRESSE: INCYTE PHARMACEUTICALS, INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
FILING DATE: HEREWITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
CITY: F
STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                334
                                         178
                                                                                           125
                                                                                                                                                                     154
                                                                  274
                                                                                                                  214
                                                                                                                                                                                                                                              al Similarity
646; Conserv
                                                                                                                                            <u>ი</u>
                                                                                                                                                                                                                      94
                                                                                                                                                                                              σ
                                                                                                                                                                                                           PALO ALTO
CALIFORNIA
GGGCAAGGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGG
                                                                                                                                                                 AGGCAGCGAGGCGAGGCGAGGCCAGAGCTCAGCCCCGCGGACGCATGTCCCCTTGCCGA
                                        CAGCGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGTGTGCT
                                                                CAGCGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGTGTGCT
                                                                                                                 AGGCAGCGAGGGCGAGCCCAGAGCTCAACNCCGCGGACGCATGTNCCCTTGCCGA
                                                                                                                                                                                            GGGCCGCNGGGGCGCGCCATNGC-GCCGTGTTTGATTTGGATTNNGAGACGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCCCTGTCCCTGCGGCTGT 1607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/09016434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3174 PORTER DRIVE
                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                           (650) 845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Floppy disk
                                                                                                                                                                                                                                                         32.7%;
95.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US/09/016,434
                                                                                                                                                                                                                                                                                                                                                                                                                118:
                                                                                                                                                                                                                                              ٥,
                                                                                                                                                                                                                                             Score 593.6; DB .
Pred. No. 1e-129;
0; Mismatches 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PA-0002 US
                                                                                                                                                                                                                                                                  DB 4;
                                                                                                                                                                                                                                              18;
                                                                                                                                                                                                                                            Indels 10;
                                                                                                                                                                                                                                                                      Length 669;
                                                                                           -GACTGAGAC
                                                                                                                                                                                                                                             Gaps
                                                                                         177
                                                                                                                  273
                                                                                                                                          124
                                                                                                                                                                   213
                                                                                                                                                                                            64
                                                                                                                                                                                                                     153
                                       237
                                                                333
                                                                                                               망
                                    Ş
                                                                당
                                                                                      8
                                                                                                                                      S
                                                                                                                                                                   片
                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                    ; TYPE: DNA
; ORGANISM: Drosophila melanogaster
US-09-817-310-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
US-09-817-310-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                 Query Match
Best Local Similarity
Matches 718; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Patent No. 6534311
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Application US/09817310 Patent No. 6534311
                                       441
                                                                                                                  709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           238 GGGCAAGGGGGCTATGGCAAGGTGTTCCAGGNGCGAAANGTGCAAGGCACCAACTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGGACTCTGCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGGACTCTGCAAGG
                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                              28.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           767
                                                                                                                                                                                                                   0;
```

```
APPLICANT: Kozma, Mary
APPLICANT: Kozma, Sarah
APPLICANT: Thomas, George
ITILE OF INVENTION: Drosophila Melanogaster P70 S6
FILE REFERENCE: 4-20971/A
CURRENT APPLICATION NUMBER: US/09/817,310
CURRENT FILING DATE: 2001-03-26
PRIOR APPLICATION NUMBER: 09/230,247
PRIOR APPLICATION NUMBER: 09/230,247
PRIOR PILING DATE: 1999-04-16
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
LENGTH: 2556
                                                                                                                                                                                                       321 TGCTGCGTGCTGGGGCAAGGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAG
                                                                                                                                                                                                                                                       649 AGCTCTGCGAGGAGAATGTTAATCCAGGTAAAATCAAGCTGGGACCCAAGGACTTTGAGC
                                                                                                                                                                                                                                                                                                        261 AGCTGACTGAGACCAGCGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                454 AGCACACACACGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGA 513
ATGCCAAGGACACACACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACC
                                                                                           GACGAGATGCTAACAAATATTTTGCCATGAAGGTGCTCAAAAAAGGCATCCATTGTGACCA
                                                                                                                                                      TCANGANGGTCCTTGGCANAGGCGGTTATGGCANAGTATTTCAGGTGCGCAAGACCGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACCGACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCCAGGGCATCATCATCTACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGANCGANTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGCCTCAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAAAATATATGCCATGAAAGTCCTAAGGAAGGCCAAAAATTGTGCGCAATGCCAAGGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTACCNGGCTGAGATCACGCTGGCCCTGGGCCATCT-CACTCCCAGGGCATCATCTACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCCTG-TT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGGCATCTTCCTGGAAGATACGGCCTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACNGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCCCATCCTTGAGTNCCTCAGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGCACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAAAATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATNCCAAGGACAC
                                                                                                                                                                                                                                                                                                                                                                              Score 514; DB 4;
Pred. No. 6.6e-111
                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                           340;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S6 Kinase
                                                                                                                                                                                                                                                                                                                                                                                                        Length 2556;
                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                           Gaps
     500
                                                        828
                                                                                                                                                                                                         380
                                                                                                                                                                                                                                                                                                          320
                                                                                                           440
                                                                                                                                                         768
                                                                                                                                                                                                                                                            708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       753
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                573
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    357
```

```
APPLICANT: Ole THASTRUP, et al.
TITLE OF INVENTION: A Method For Extracting Qu.
TITLE OF INVENTION: On A Cellular Response
FILE REFERENCE: 3759-0110P
CURRENT APPLICATION NUMBER: US/09/417,197
CURRENT FILING DATE: 1999-10-07
NUMBER OF SEQ ID NOS: 143
SOFTWARE: Patentin version 3.0
SEQ ID NO 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 7
US-09-417-197-70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    돲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      음 성
                                                                                                                                                                                                                                                                                                               Sequence 70, Application Patent No. 6518021 GENERAL INFORMATION:
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCTTTCAGGCCCTGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCAGCGGATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACACATCCCTTTTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTTAITGTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACACGTCAACTGGGACGATGTGCTCGCCAGACGCCTCGAGCCGCCTATAAAACCGCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        crica de de contra de cada de contra de contra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CAGTCGACTGGTGGTCACTGGGCGCTCTCATGTTTGACATGCTCACAGGAGTCCCACCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCATCATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCAGCCAGGGCCACATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAAAGTTTCTGAAAACGGAATCCCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTACCGCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTGTGGACTGGTGGAGCCTGGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCATCATCTACCGCGATCTGAAGCCCCGAGAACATACTGCTCGATGCACAGGGACATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATACCACATGCTTCTATCTAAGCGAAATCATTTTGGCCTTGGGCCATCTACACACAACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATACGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCACTCCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTGCCTCAGTGGTGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGGCATCTTCCTGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGITGCACCCTCGATACTGGAGGATATGCATCGGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTCCCCTGATGATACAACGCTAAGCGAAAGTGCCAATTTAATTTTCCAAGGTTTCACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGCCTACCTCACACCGGAAGCCAGGGATCTGGTGCGTCGCCTGATGAAGCGGCAGGAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCACCGCCGAGAATCGCAAGAAGACCATCGAGACCATTCTGAAAGCCAAGCTCAATCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTGCGGCACAATTGAGTACATGGCACCTGAAATTTTGACCAGAAGTGGCCATGGCAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAGAAGCGAGGATGATGTCTCACAGTTCGATACAAGATTCACAAGACAAATTCCAGTGG
                                                                                                                                                                                                                                                                                                                                                                            US/09417197
                                                                                                                                                                                                                                                           Quantitative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1318
                                                                                                                                                                                                                                                              Information
                                                                                                                                                                                                                                                           Relating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1040
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                680
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           948
                                                                                                                                                                                                                                                              성
                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                   8
                                                                                                           Ş
                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; NAME/KEY: CDS
; LOCATION: (1)..(2178)
US-09-417-197-70
                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 517; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ORGANISM: Artificial Sequence FEATURE:
OTHER INFORMATION: PKB-EGFP for FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                        1125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1005
                                                                                                                                                                                                                               1120
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              343
                                                                                                                                                                                                                                                                                                                              CCCAGGGGATGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTGGGACGA
                                                                                                                                                                                                                                                                                                                                                                                                     GGCCAAGTCCTTGCTTTCAGGGCTGCTCAAGAAGGACCCCAAGCAGAGGCTTGGCGGGG 1184
                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGGGCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACCGCAGAGAACCGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTGGCCCCGAGGTGCTGGAGGACAATGACTACGGCCGTGCAGTGGACTGGTGGGGCT 1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CATGGCCCCGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCAAGGAGTCTATCCATGAGGGGGCGCCGTCACTCACACCTTCTGGGGCACCATTGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAGCTGGAGAACCTCATGCTGGACAAGGACGGGCACATTAAGATCACAGACTTCGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTCACGCATCTGGAGCGAGAGAGACTCTTCCTGGAAGATACGGCCTGCTTCTACCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCCATGAAGATCCTCAAGAAGGAAGTCATCGTGGCCAAGGACGAGG---TGGCCCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                тессателалетсстванеессмалаттетесскантессванеелсменесасасас
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTTGGGCAAAATATA
   CCTCAGC
                                                             CAGGTATTTTGATGAGGAGTTTCACGGCCCAGATGATCACCATCACACCACCTGACCAAGA
                                                                                                              GAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAGTCCTGATGACACAGC 1239
                                                                                                                                                                                                       CCTTCTGGCCTGGCGTGTGGACCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGACGT 1179
                                                                                                                                                                                                                                                                                         CTCCGAGGACGCCAAGGAGATCATGCAGCATCGCTTCTTTGCCGGTATCGTGGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAGCTTTTTGAGCTCATCCTCATGGAGGAGATCCGCTTCCCGCGCACGCTTGGTCCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       даралассатоваталаватся половововся в ответся с тостолого по от температи. В ответствение от температи. В от температи. В ответствение от температи. В оттемперати. В ответствение от температи. В ответствение от температ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGCGTGGTCATGTACGAGATGATGTGCGGTCGCCTGCCCTTCTACAACCAGGACCATGA 1066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGCAAGGAGGGGATCAAGGACGGTGCCACCATGAAGACCTTTTGCGGCACACCTGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGAGATTGTGTCAGCCCTGGACTACCTGCACTCGGAGAAGAACGTGGTGTACCGGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAGATCACGCTGGCCCTGGGCCATCTCCACTC---CCAGGGCATCATCTACCGGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GTTCTTCCACCTGTCCCGGGAACGTGTTCTCCGAGGACCGGGCCCGCTTCTATGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCTTTCCAGACCCACGACCGCCTCTGCTTTGTCATGGAGTACGCCAACGGGGGCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOCCTTCCAGACTGGTCAAACTCTACCTCATCCTTCAGTCCTCAGTGGTGGCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACTCACCGÁGAACCGCGTCCTGCÁGAACTCCAGGCÁCCCCTTCCTCACAGCCCTGAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCAAGGGCACTTTCGGCAAGGTGATCCTGGTGAAGGAGAAGGCCACAGGCCGCTACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14.4%;
ilarity 57.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 260.8; DB 4;
Pred. No. 1e-51;
0; Mismatches 384;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                       1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        402
                                                                                                                                                                                                                                                                                                1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      759
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    582
```

```
S
                                     몺
                                                                  δ
                                                                                                       밁
                                                                                                                                   ঠ
                                                                                                                                                                          ₽
                                                                                                                                                                                                    S
                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                            $
                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                           밝
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       몺
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 8
US-09-417-197-138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; NAME/KEY: CDS
; LOCATION: (1)..(2181)
US-09-417-197-138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 138, Application US/09417197
Patent No. 6518021
GENERAL INFORMATION:
APPLICANT: Ole THASTRUP, et al.
TITLE OF INVENTION: A Method For Extracting Quantitative Information 1
TITLE OF INVENTION: On A Cellular Response
FILE REFERENCE: 3759-0110P
CURRENT APPLICATION NUMBER: US/09/417,197
CURRENT FILING DATE: 1999-10-07
NUMBER OF SEQ ID NOS: 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
Matches 517; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn version 3.0
SEQ ID NO 138
LENGTH: 2184
TYPB: DNA
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OTHER INFORMATION: EGFP-PKB fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                     1746
                                                                                                         1686
                                                                                                                                                                              1626
                                                                                                                                                                                                                                               1566
                                                                                                                                                                                                                                                                                                                   1506
                                                                                                                                                                                                                                                                                                                                                                                        1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1326
                                                                                                                                                                                                                                                                                                                                                                                                                                                           1386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1365
                                                                                                                                           820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1269 CGCCATGAAGATCCTCAAGAAGGAAGTCATCGTGGCCAAGGACGAGG----TGGCCCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      403
   940
                                                                                                                                                                                                             760
                                                                                                                                                                                                                                                                                                                                                     643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        343
GAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCTACCTCACCCCAGA
                                                                                                                                                                                                                                                                         CAAGCCCGAGAACATCATGCTCAGCAGCCCAGGCCCACATCAAACTGACCGACTTTGGACT
                                 GGGCGTGGTCATGTACGAGATGATGTGCGGTCGCCTTGCCCTTCTACAACCAGGACCATGA 1805
                                                                                                       CCTGGCCCCGAGGTGCTGGAGGACAATGACTACGGCCGTGCAGTGGACTGGTGGGGGGCT
                                                                                                                                                                                                CTGCAAGGAGTCTATCCATGAGGGCGCCGTCACTCACACCTTCTGCGGCACCACTTGAGTA
                                                                                                                                                                                                                                             CAAGCTGGAGAACCTCATGCTGGACAAGGACGGGCACATTAAGATCACAGACTTCGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATGCCAAGGACACAGCACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAAAATATA
                                                                    GGGGGCCCTGATGTTACGACATGCTCACTGGATCGCCGCCCTTTACCGCAGAGAACCCGGAA
                                                                                                                                         CATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGAGCCT
                                                                                                                                                                          GTGCAAGGAGGGGATCAAGGACGGTGCCACCATGAAGACCTTTTGCGGCACACCTGAGTA 1685
                                                                                                                                                                                                                                                                                                                TGAGATTGTGTCAGCCCTGGACTACCTGCACTCGGAGAAGGAACGTGGTGTACCGGGACCT
                                                                                                                                                                                                                                                                                                                                                                                      GTTCTTCCACCTGTCCCGGGAACGTGTTCTCCGAGGACCGGGCCCGCTTCTATGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCTACCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGCCTCAGTGGTGGCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACTCACCGAGAACCGCGTCCTGCAGAACTCCAGGCACCCCTTCCTCACAGCCCTGAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGCAAGGGCACTTTCGGCAAGGTGATCCTGGTGAAGGAGAAGGCCACAGGCCGCTACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGACAGC 1371
                                                                                                                                                                                                                                                                                                                                                   TGAGATCACGCTGGCCCTGGGCCATCTCCACTC---CCAGGGCATCATCTACCGGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             acegecteaecegaacattctaeaetcaeteaaecaccccttatteteeaacteeccta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         14.4%;
57.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 260.8; DB 4;
Pred. No. 1e-51;
D; Mismatches 384;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        <u>ب.</u>
ون
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Relating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              . 1385
                                                                                                                                                                                                                                             1625
                                                                                                                                                                                                                                                                                                                1565
                                                                                                                                                                                                                                                                                                                                                                                    1505
                                                                                                                                                                                                                                                                                                                                                                                                                                                         1445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        402
                                                                                                                                                                                                                                                                              759
                                                                                                                                                                                                                                                                                                                                                   699
                                                                                                                                                                                                                                                                                                                                                                                                                        642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ; LENGTH: 2610
; TYPE: DNA
; ORGANISM: Homo Bapiens
; PEATURE:
; PEATURE: CDS
; LACATION: (199)..(1641)
US-09-212-771-1
                                                                                                                                                    ₿_.8
                                                S
                                                                                                               8
                                                                                   몽
                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 9
US-09-212-771-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      몂
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            よ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Brett P. Monia
APPLICANT: Lex M. Cowsert
TITLE OF INVENTION: ANTISENSE MODULATION OF
FILE REFERENCE: RTS-0034
                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 14.4%;
Best Local Similarity 57.0%;
Matches 517; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Application US/09212771
Patent No. 5958773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/212,771
CURRENT FILING DATE: 1998-12-16
NUMBER OF SEQ ID NOS: 47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2106 TGACAGC 2112
                E96
                                                                                   903
                                                                                                                      583
                                                                                                                                                                                                                                                              463
                                                                                                                                                                                                                          783
                                                                                                                                                                                                                                                                                                                                                                    999
                                                                                                                                                                                                                                                                                                                                                                                                   343 GGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAAAATATA 402
                                                                                                                                                                                                                                                                                                                               403 TGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATGCCAAGGACACAGCACACAC
                                                                                                                                                                          TGCCTTCCAGACTGGTGGCAAACTCTAACCTCATCCTTGAGTGCCTCAGTGGTGGCGAGCT
                                                                                                                    CTTCACGCATCTGGAGCGAGAGGCATCTTCCTGGAAGATACGGCCTGCTTCTACCTGGC
                                                                                                                                                                                                                                                                                               CGCCATGAAGATCCTCAAGAAGGAAGTCATCGTGGCCAAGGACGAGG---TGGCCCACAC
                TGAGATTGTGTCAGCCCTGGACTACCTGCACTCGGAGAAGAACGTGGTGTACCGGGACCT
                                                                                 GTTCTTCCACCTGTCCCGGGAACGTGTGTTCTCCGAGGACCGGGCCCGCTTCTATGGCGC
                                                                                                                                                                                                                          ACTCACCGAGAACCGCGTCCTGCAGAACTCCAGGCACCCCTTCCTCACAGCCCTGAAGTA
                                                                                                                                                                                                                                                   ACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCCTA
                                                                                                                                                                                                                                                                                                                                                                  TGAGATCACGCTGGCCCTGGGCCATCTCCACTC---CCAGGGCATCATCTACCGGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTCAGC 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAGGTATTTTGATGAGGAGTTCACGGCCCAGATGATCACCATCACCACCTGACCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAGTCCTGATGACACAGC 1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTGGGACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCCAAGTCCTTGCTTTCAGGGCTGCTCAAGAAGGACCCCAAGCAGAGGCTTGGCGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAAGCTTTTTGAGCTCATCCTCATGGAGGAGAGATCCGCTTCCCGCGCACGCTTGGTCCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGTGTACGAGAAGAAGCTCAGCCCACCCTTCAAGCCCCAGGTCACGTCGGAGACTGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGACGT 1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCGAGGACGCCAAGGAGCATCCACCATCGCTTCTTTGCCGGTATCGTGTGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                      ٥.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 260.8; DB 2;
Pred. No. 1.1e-51;
0; Mismatches 384;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AKT-1 EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2610;
                                                                                                                                                                                                                                                                                                                                                                                                                                      ٠.
ص
                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                1022
                                                   699
                                                                                     962
                                                                                                                      642
                                                                                                                                                                                         582
                                                                                                                                                                                                                          842
                                                                                                                                                                                                                                                              522
                                                                                                                                                                                                                                                                                                                                462
                                                                                                                                                                                                                                                                                                                                                                    725
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1059
                                                                                                                                                         902
                                                                                                                                                                                                                                                                                             782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2045
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1925
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1865
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1985
```

```
TITLE OF INVENTION: Screening Method
FILE REFERENCE: 4-2068)/A/20684/PCT
CURRENT APPLICATION NUMBER: US/09/091,058
CURRENT FILING DATE: 1998-06-10
EARLIER APPLICATION NUMBER: PCT/SE96/04814
EARLIER APPLICATION NUMBER: 9525703.6
EARLIER APPLICATION NUMBER: 9525703.6
EARLIER APPLICATION NUMBER: 9525703.6
EARLIER PILING DATE: 1995-12-15
NUMBER OF SEQ ID NOS: 23
SOPTWARE: PATENTIN Ver. 2.0
SEQ ID NO 1
SEQ ID NO 1
SEQ ID NO 1
SEQ ID NO 1
                      S
                                                                                                                            ; NAME/KEY: CDS
; LOCATION: (199)..(1641)
US-09-091-058-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
US-09-091-058-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        얾
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద్ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ď,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            덩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                Query Match
Best Local Similarity
Matches 517; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/09091058
Patent No. 6054285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Hemmings, Brian A. APPLICANT: Frech, Matthias
                                                                                                                                                                              ORGANISM: Homo
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1023
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1203
 343 GGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAAAATATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCCAGTTTGATACCCGCTTCACACGCCAGACGCCGGTGGACAGTCCTGATGACACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACCGACTTTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCTCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAGGTATTTTGATGAGGAGTTCACGGCCCAGATGATCACCATCACCACCACCTGACCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGTGTACGAGAAGAAGCTCAGCCCACCCTTCAAGCCCCAGGTCACGTCGGAGACTGACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTCCGAGGACGCCAAGGAGATCATGCAGCATCGCTTCTTTGCCGGTATCGTGTGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTGGGACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GECCAAGTCCTTGCTTTCAGGGCTGCTCAAGAACGACCCCAAGCAGAGAGCTTGGCGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCTACCTCACCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GGGCGTGGTCATGTACGAGATGATGTGCGGTCGCCTTCCTACAACCAGGACCATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACCGCAGAGAACCGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCTGGCCCCGAGGTGCTGGAGGACAATGACTACGGCCGTGCAGTGGACTGGTGGGGGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGAGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGCAAGGAGGGGATCAAGGACGGTGCCACCATGAAGACCTTTTTGCGGCACACCTGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGCAAGGAGTCTATCCATGAGGGCGCGCGTCACTCACACCTTCTGCGGCACCATTGAGTA 819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAAGCTGGAGAACCTCATGCTGGACAAGGACGGGCACATTAAGATCACAGACTTCGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGCTTTTTGAGCTCATCCTCATGGAGGAGATCCGCTTCCCGCGCACGCTTGGTCCCGA
                                                         Conservative
                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1569
                                                                      14.4%;
                                                       0
                                                     Score 260.8; DB 3;
Pred. No. 1.1e-51;
0; Mismatches 384;
                                                       Indels
                                                       6
                      402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1442
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1082
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             759
                                                                                       US-09-023-655-1206; Sequence 1206, Application; Patent No. 6607879; GENERAL INFORMATION:
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                            á
                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                              RESULT 11
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                   APPLICANT:
APPLICANT:
   TITLE
                                                                                                                                                                                                                                                                                                                                                        1443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1023
CANT: Cocks, Benjamin G.
CANT: Susan G. Stuart
CCANT: Jeffrey J. Seilhamer
OF INVENTION: COMPOSITION
OF INVENTION: EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       880
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              820
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 760
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     700
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               843
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           999
                                                                                                                                                                                                                                               CCTCAGC 1246
                                                                                                                                                                                                                TGACAGO
                                                                                                                                                                                                                                                                                                                    GAGCCAGTTTGATACCCGCTTCACACGCCAGACGCCGGTGGACAGTCCTGATGACACAGC
                                                                                                                                                                                                                                                                                                                                                        CGTGTACGAGAAGAAGCTCAGCCCACCCTTCAAGCCCCAGGTCACGTCGGAGACTGACAC
                                                                                                                                                                                                                                                                                                                                                                                       CCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGAGGACGT
                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCGAGGACGCCAAGGAGCATCATGCAGCATCGCTTCTTTGCCGGTATCGTGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                          cccaesegarecrecrearerecasasascarcccrrrrrccescacareaarreseacea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGCCAAGTCCTTGCTTTCAGGGCTGCTCAAGAAGGACCCCAAGCAGAGGCTTGGCGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAAGCTTTTTGAGCTCATCCTCATGGAGGAGATCCGCTTCCCGCGCACGCTTGGTCCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCTACCTCACCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGCGTGGTCATGTACGAGATGATGTGCGGTCGCCCTTCTACAACCAGGACCATGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GOGGGCCTGATGTACGACATGCTCACTGGATCGCCGCTTTACCGCAGAGAACCGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTGCAAGGAGGGGATCAAGGACGGTGCCACCATGAAGACCTTTTTGCGGCACACCTGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCAAGGAGTCTATCCATGAGGGCGCCGTCACTCACACCTTCTGCGGCACCATTGAGTA
                                                                                                                                                                                                                                                                                   CAGGTATTTTGATGAGGAGTTCACGGCCCAGATGATCACCATCACCACCACCTGACCAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CAAGCTGGAGAACCTCATGCTGGACAAGGACGGGCACATTAAGATCACAGACTTCGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACCGACTTTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGAGATTGTGTCAGCCCTGGACTACCTGCACTCGGAGAAGAACGTGGTGTACCGGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAGATCACGCTGGCCCTGGGCCATCTCCACTC---CCAGGGCATCATCTACCGGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GTTCTTCCACCTGTCCCGGGAACGTGTGTTCTCCGAGGACCGGGCCCGCTTCTATGGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCTACCTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTCTTTCCAGACCCACGACCGCCTCTGCTTTGTCATGGAGTACGCCAACGGGGGCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGCCTCAGTGGTGGCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTCACCGAGAACCGCGTCCTGCAGAACTCCAGGCACCCCTTCCTCACAGCCCTGAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCCATGAAGATCCTCAAGAAGGAAGTCATCGTGGCCAAGGACGAGG----TGGCCCCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGGCAAGGGCACTTTCGGCAAGGTGATCCTGGTGAAGGAAAGGCCACAGGCCGCTACTA
                                                                                                                                                                                                                1569
                                                                                                                          US/09023655
                      POR
R
                      THE DETECTION OF BLOOD CELL
```

1322 1059 1382 1119 1262

999

1142

1202

1082

819

1022

759

699

642

962

782 522 842 582

1382

999 1262

```
US-09-023-655-1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 517; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (650) 845-416
TELEPAX: (650) 845-416
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IMMEDIATE SOURCE:
LIBRARY: GENBA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 31...
STREET: 31...
CITY: PALO ALTO
CTATE: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 1508
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 2610 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
APPLICATION NUMBER: US.
FILING DATE: HEREWITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
SOPTWARE: Word Perfect 6.1 for Windows/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER:
                                                            1023
                                                                                                                                      963
                        760
                                                                                                700
                                                                                                                                                                        643
                                                                                                                                                                                                              903
                                                                                                                                                                                                                                                    583
                                                                                                                                                                                                                                                                                        843
                                                                                                                                                                                                                                                                                                                                                                 783
                                                                                                                                                                                                                                                                                                                                                                                                     463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   666
                                                                                                                                                                                                                                                                                                                                                                                                                                           726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94304
CTGCAAGGAGTCTATCCATGAGGGCGCCGTCACTCACACCCTTCTGCGGCACCATTGAGTA
                                                                                                                                                                      TGAGATCACGCTGGCCCTGGGCCATCTCCACTC---CCAGGGCATCATCTACCGGGACCT
                                                                                                                                                                                                                                                                                    TGCCTTCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGGCCCTCAGTGGTGGCGAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   nucleic acid
                                                          CAAGCTGGAGAACCTCATGCTGGACAAGGACGGGCACATTAAGATCACAGACTTCGGGCT
                                                                                                                                                                                                              GTTCTTCCACCTGTCCCGGGAACGTGTGTTCTCCGAGGACCGGGCCCGCTTCTATGGCGC
                                                                                                                                                                                                                                                CTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCTACCTGGC
                                                                                                                                                                                                                                                                                                                                                              ACTCACCGAGAACCGCGTCCTGCAGAACTCCAGGCACCCCTTCCTCACAGCCCTGAAGTA
                                                                                                                                                                                                                                                                                                                                                                                                   ACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGCTATGGCAAGGTGTTCCAGGTGCGAAAAGGTGCAAGGCAACTTGGGGCAAAATATA
                                                                                              CAAGCCCGAGAACATCATGCTCAGCAGCCAGGCCACATCAAACTGACCGACTTTGGACT
                                                                                                                                    TGAGATTGTGTCAGCCCTGGACTACCTGCACTCGGAGAAGAACGTGGTGTACCGGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                       CGCCATGAAGATCCTCAAGAAGGAAGTCATCGTGGCCAAAGGACGAGG---TGGCCCACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3174 PORTER DRIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14.48; 57.08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US/09/023,655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1206:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 260.8; DB 4;
Pred. No. 1.1e-51;
0; Mismatches 384;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PA-0001 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 2610;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                      819
                                                                                                                                    1022
                                                                                                                                                                                                                                                642
                                                                                                759
                                                                                                                                                                        699
                                                                                                                                                                                                            962
                                                                                                                                                                                                                                                                                      902
                                                                                                                                                                                                                                                                                                                          582
                                                                                                                                                                                                                                                                                                                                                                                                   522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             462
                                                                                                                                                                                                                                                                                                                                                              842
                                                                                                                                                                                                                                                                                                                                                                                                                                       782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 725
                                                                                                                                                                                        ĝ
                                  문
                                                                        Ş
                                                                                                                밁
                                                                                                                                            5
                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                              US-09-256-465-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-256-465-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Brett P. Monia
APPLICANT: Brett P. Monia
APPLICANT: Lex M. Cowsert
TITLE OF INVENTION: ANTISENSE MODULATION OF
FILE REFERENCE: RTS-0035
CURRENT APPLICATION UNMERS: US/09/256,465
CURRENT FILING DATE: 1999-02-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 47 SEQ ID NO 1
                                                                                                                                                                                                                                                                  Matches 569;
                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1, Application US/09256465 Patent No. 6043090
                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: DNA ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                              NAME/KEY: CDS
LOCATION: (88)
                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1563 TGACAGC 1569
                                                                                                                                                      373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1143
    493
                                                                                                                                                                                                                313 CTTTGAGCTGCTGCGTGCTGGGCAAGGGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAA 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1083 GTGCAAGGAGGGATCAAGGACGGTGCCACCATGAAGACCTTTTGCGGCACACCTGAGTA 1142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               880
                                    CATTGCCAAGG---ATGAAGTCGCTCACACAGTCACCGAGAGCCGGGTCCTCCAGAACAC 707
  GAAGCACCCCTTTATTGTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCT
                                                                                                                                                  CTTCGACTATCTCAAACTCCTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGA
                                                                        TGTGCGCAATGCCAAGGACACAGCACACACACGGGCTGAGCGGAACATTCTAGAGTCAGT
                                                                                                                G-----AAGGCCACTGGCCGCTACTACGCCATGAAGATCCTGCGAAAGGAAGTCAT
                                                                                                                                                                                                                                                                                                                                                            (88) . . (1533)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCTCAGC 1246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGCCAGTTTGATACCCGCTTCACACGCCAGACGCCGGTGGACAGTCCTGATGACACAGC 1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGACGT 1179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGTATTTTGATGAGGAGTTCACGGCCCAGATGATCACCATCACCACCTGACCAAGA 1562
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTGTACGAGAAGAAGCTCAGCCCAACCCTTCAAGCCCCAGGTCACGTCGGAGACTGACAC 1502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTCCGAGGACGCCAAGGAGATCATGCAGCATCGCTTCTTTGCCGGTATCGTGGCAGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCCAAGTCCTTGCTTTCAGGGCTGCTCAAGAAGGACCCCAAGCAGAGGCTTGGCGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCCAGGGGATGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTGGGACGA 1119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACCGCAGAGAACCGGGAA 939
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CCTGGCCCCCGAGGTGCTGGAGGACAATGACTACGGCCGTGCAGTGGACTGGTGGGGGGCT 1202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCTACCTCACCCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAAGCTTTTTGAGCTCATCCTCATGGAGGAGATCCGCTTCCCGGCGCACGCTTGGTCCCGA 1322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGGCGTGGTCATGTACGAGATGATGTGCGGTCGCCTTCCTACAACCAGGACCATGA
                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                  14.0%;
                                                                                                                                                                                                                                                                0
                                                                                                                                                                                                                                                                Score 253.8; DB 3;
Pred. No. 4.1e-50;
0; Mismatches 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AKT-2 EXPRESSION
                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                    Length 1599;
```

S 문 Ś 먉 Ś 皮 8 유, S 밁 Ś 맑 Ś 밁 S

12;

599

552

492

Ď,

S

S

Ď, Ś 밁

B

밁

S

S

```
RESULT 13
US-09-167-322-3
(Sequence 3, Application US/09167322
; Patent No. 6365151
; Patent No. 6365151
; GENERAL INFORMATION:

OTHER OF THE PROPERTY OF T
APPLICANT: Allegheny University of the Health
Sciences, Halpern, Michael S.
England, James M.
TITLE OF INVENTION: CANCER VACCINE
MUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSE: Seidel, Gonda, Lavorgna & Monaco, P.C.
STREET: Suite 1800, Two Penn Center Plaza
                                                                                                                                                                                                                                                                                                                                     1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          708
                                                                                                                                                                                                                                                                                                                                   CAGAGGACGCACGCTCGCTGCCATCACCGCTGG 1580
                                                                                                                                                                                                                                                                                                                                                                            CAAGCTGCGCTCACCCAGGCGCCTCAACAGTAG 1365
                                                                                                                                                                                                                                                                                                                                                                                                                       GACCCACTTCCCCCAGTTCTCCTACTCGGCCAGCATCCGCGAGTGAGCAGTCTGCCCCACG 1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCACATACGTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCACAATCACACCCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACCTCAGGTCACGTCCGAGGTCGACACAAGGTACTTCGATGATGAATTTACCGCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCCTGTCTGCAGTCAGAGGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTCCTGCCACCCTTCAA 1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGACCCCAAGCAGAGGCTTGGTGGGGGGCCCCAGCGATGCCAAGGAGGTCATGGAAGCACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAATCCCAGCCAGCGGATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCC 1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCACTGCCCCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAAAGTTTCTGAAACG 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGCCCTTCTACAACCAGGACCACGAGGGGCCCTCTTCGAGCTCATCCTCATGGAAGAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGCCCTTACCGCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAACCGGGCTGTGGACTGGTGGAGCCTGGGGGCCCCTGATGTACGACATGCTCACTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCACGACGACGCCTGTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCGGTGGACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAAACCTTCTGTGGGACCCCGGAGTACCTGGCGCCTGAGGTGCTGGAGGACAATGACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCACACCTTCTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGGTGGCGCAGTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCCCAGGGCATCATCTACCGGGACCCTCAAGGCCCGAGAACATCATGCTCAGCAGCCAGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCCTTCAGTGCCTCAGTGGTGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCACATCAAGATCACTGACTTTGGCCTCTGCAAAGAGGGCATCAGTGACGGGGCCACCAT 1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCACATCAAACTGACCGACTTTGGACTCTGCAAGGAGTCTATCCATGAGGGCGCCGTCAC 792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGGAAGATACGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTCGCGGGACGTGGTATACCGCGACATCAAGCTGGAAAACCTCATGCTGGACAAAGATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1067
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        767
                                                                                                                                                                                                              , Do
                                                                                         δ
                                                                                                                                       당
                                                                                                                                                                           S
           S
                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                끊
                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ó
                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; SEQUENCE DESCRIPTION: SEQ ID NO: US-09-167-322-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: PCT/US97/00582
FILING DATE: <UDATON:
ATTORNEY/AGENT INFORMATION:
NAME: MODACO, Daniel A.
REGISTRATION NUMBER: 30,480
REFERENCE/DOCKET NUMBER: 7933-33 PC
TELEPHONE: (215) 568-583
TELEPHONE: (215) 568-589
INFORMATION POR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
TENTON: 1800 hose naits
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 569;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 14.0%;
Best Local Similarity 54.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Pateentin Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/167,322
FILING DATE: 07-Oct-1998
CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                       948
                                                                                                                                                                                                                           888
                                                                                           793
                                                                                                                                                                                733
                                                                                                                                                                                                                                                                     673
                                                                                                                                                                                                                                                                                                                828
                                                                                                                                                                                                                                                                                                                                                       613
                                                                                                                                                                                                                                                                                                                                                                                                   768
                                                                                                                                                                                                                                                                                                                                                                                                                                          553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               433
                                                    GAAAACCTTCTGTGGGACCCCGGAGTACCTGGCGCCTGAGGTGCTGGAGGACAATGACTA
                                                                                       TCACACCTTCTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCA 852
                                                                                                                                                                CCACATCAAACTGACCGACTTTGGACTCTGCAAGGAGTCTATCCATGAGGGCGCCGTCAC
         CAACCGGGCTGTGGACTGGTGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATC
                                                                                                                                         CCACATCAAGATCACTGACTTTGGCCTCTGCAAAGAGGGCATCAGTGACGGGGCCACCAT
                                                                                                                                                                                                                         CTCGCGGGACGTGGTATACCGCGACATCAAGCTGGAAAAACCTCATGCTGGACAAAGATGG
                                                                                                                                                                                                                                                  CTCCCAGGGCATCATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                CACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCA
                                                                                                                                                                                                                                                                                                                                                     ccrecaacaraceccrecircaaccrecircaacaracacacacacacciccicca
                                                                                                                                                                                                                                                                                                                                                                                                                                   CATCCTTGAGTGCCTCAGTGGTGGCGAGCGAGCCTCTTCACGCATCTGGAGCGAGAGGGCATCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CAGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCACGACCGCCTGTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAAGCACCCCTTTATTGTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATTGCCAAGG---ATGAAGTCGCTCACACACTCACCGAGAGCCGGGTCCTCCAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGTGCGCAATGCCAAGGACACAGCACACACGGGCTGAGCGGAACATTCTAGAGTCAGT 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCGACTATCTCAAACTCCTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGA 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTTGAGCTGCTGCGTGTGCTGGGCAAGGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: PA
                                                                                                                                                                                                                                                                                                                                                                                                     TGTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGTH: 1599 base pairs
TYPB: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 19102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: Philadelphia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGGCCACTGGCCGCTACTACGCCATGAAGATCCTGCGAAAGGAAGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 253.8; DB 4;
Pred. No. 4.1e-50;
0; Mismatches 472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                7933-33 PC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                      1067
                                                                                                                                                                                                                                                                                                                   887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            707
                                                                                                                                                                                                                                                                                                                                                          672
                                                                                                                                                                                                                                                                                                                                                                                                                                              612
                                                                                                                                                                                                                           947
                                                                                                                                                                                                                                                                       732
                                                                                                                                                                                                                                                                                                                                                                                                     827
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               650
```

Ó

뮍 ð 밁 S 밁 Ś 밁

문

Ş

S 문

Ş 밁 S 밁 δ 유

문

```
RESULT 14
US-09-023-655-1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1004, Application US/09023655
Patent No. 6607879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
  ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Cocks, Benjamin G.
APPLICANT: Susan G. Stuart
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION
TITLE OF INVENTION: EXPRESSION
NUMBER OF SEQUENCES: 1508
                                                                                                                                                                                                                                            SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                        PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                              CLASSIFICATION:
                                                                                                                                                  APPLICATION NUMBER:
                                                                                                                                                                                            CLASSIFICATION:
                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                          APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1033
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1068 TGGCCGGCCGTGGACTGGTGGGGGGGTGGGTCATGTACGAGATGATGATGATGACGACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    913
                                                                                                                                                                                                                                                                                                                                                                94304
                                                                                                                                                                                                                                                                                                                                                                                                                  SSEE: INCYTE PHARMACEUTICALS,
T: 3174 PORTER DRIVE
PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGAGGACGCACGCTCGCTGCCATCACCGCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAAGCTGCGCTCACCCAGGCGCCTCAACAGTAG 1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GACCCACTTCCCCCAGTTCTCCTACTCGGCCAGCATCCGCGAGTGAGCAGTCTGCCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCACATACGTGGCGCCGTCTGGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CATCACAATCACACCCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCGGTGGACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCTCAGGTCACGTCCGAGGTCGACACAAGGTACTTCGATGATGAATTTACCGCCCAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCCCTGTCTGCAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GITCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTCCTGCCACCCTTCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGCACTGCCCCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAAAGTTTTCTGAAAACG 1032
                                                                                                                                                                                                                                                                                                                                                                                                CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAG 1152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GEACCCCAAGCAGAGGCTTGGTGGGGGGCCCCAGCGATGCCAAGGAGGTCATGGAGCACAG 1307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAATCCCAGCCAGCGGATTGGGGGTGGCCCCAGGGGATGCTGCTGATGTGCAGAGACATCC 1092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CCTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGAT 1187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCGCCCTTTACCGCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                            HEREWITH
                                                                                                                                                                                                                              US/09/023,655
                                      PA-0001 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    THE
                                                                                                                                                                                                                                                                                                                                                                                                                                                          INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DETECTION OF BLOOD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CELL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OH N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: (650) 845-4166
; INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 1599 base pairs
TYPE: nucleic acid
STRANDEDMESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE;
LINEARY: GENBANK
CLONE: 9178325
US-09-023-655-1004
                                                                                                                                                                                      ĝ
                                    문
                                                                      S
                                                                                                            먉
                                                                                                                                            S
                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                      á
                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      よ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  跊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 569;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                  1033
                                                                                                              1248
                                                                                                                                                                                                                                                              1128
                                                                                                                                                                                                                                                                                                                                        1068
                                                                                                                                                                                                                                                                                                                                                                                                                  1008
                                                                                                                                                                                                                                                                                                  913
                                                                                                                                                                                                                                                                                                                                                                            853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      768
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        651 CATTGCCAAGG---ATGAAGTCGCTCACACAGTCACCGAGAGCCGGGTCCTCCAGAACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  313 CTTTGAGCTGCGTGTGCTGGGCAAGGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        h 14.0%;
Similarity 54.0%;
GCCCTGTCTGCAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGAC 1212
                                    GTTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTCCTGCCACCCTTCAA 1367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCACATCAAACTGACCGACTTTGGACTCTGCAAGGAGTCTATCCATGAGGGGCGCGTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAAGCACCCCTTTATTGTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCT
                                                                                                            GGACCCCAAGCAGAGGCTTGGTGGGGGGCCCCAGCGATGCCAAGGAGGTCATGGAGCACAG
                                                                                                                                                GAATCCCAGCCAGCGGATTGGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCC
                                                                                                                                                                                                                          GGCACTGCCCCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAAAAGTTTCTGAAAACG
                                                                                                                                                                                                                                                                CCTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGAT
                                                                                                                                                                                                                                                                                                GCCGCCCTTTACCGCAGAGAACCGGAAAGAAAACCATGGATAAGATCATCAGGGGCAAGCT
                                                                                                                                                                                                                                                                                                                                        TGGCCGGGCCGTGGACTGGTGGGGGGTGTGGTCATGTACGAGATGATGTGCGGCCG
                                                                                                                                                                                                                                                                                                                                                                        CAACCGGGCTGTGGACTGGTGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATC
                                                                                                                                                                                                                                                                                                                                                                                                                GAAAACCIT
                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCACACCTTCTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATCCTTGAGTGCCTCAGTGGTGGCGAGCTCTTCACGCATCTGGGAGCGAGAGGGCAFCTT
                                                                      critricosscacarsaarressacsaccircresceressersissacciccirricas
                                                                                                                                                                                      CCACATCAAGATCACTGACTTTGGCCTCTGCAAAGAGGGCATCAGTGACGGGGCCACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTCGCGGGACGTGGTATACCGCGACATCAAGCTGGAAAACCTCATGCTGGACAAAGATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTCCCAGGGCATCATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGTGCGCAATGCCAAGGACACAGCACACACACGGGCTGAGCGGAACATTCTAGAGTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCTGGAAGATACGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CAGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCACGACCGCCTGTGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G-----AAGGCCACTGGCCGCTACTACGCCATGAAGATCCTGCGAAAGGAAGTCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCGACTATCTCAAACTCCTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                  CTGTGGGACCCCGGAGTACCTGGCGCCTGAGGTGCTGGAGGACAATGACTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1004:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 253.8; DB 4
Pred. No. 4.1e-50;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    472;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1599;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                              1307
                                                                                                                                                  1092
                                                                                                                                                                                                                          1032
                                                                                                                                                                                                                                                                1187
                                                                                                                                                                                                                                                                                                                                          1127
                                                                                                                                                                                                                                                                                                                                                                                                                  1067
                                                                                                                                                                                                                                                                                                    972
                                                                                                                                                                                                                                                                                                                                                                                                                                                      852
                                                                                                                                                                                                                                                                                                                                                                              912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1007
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                767
```

g Ş 멼 Ś

Ś 몽

볹 Ś В Ś 문 5 밁 Ś 밁 S

Ś	P &	용 성	B 성	유 성	음 성	유	유 성	음 성		US SO DO	
									Juer Jest	SSULT 15 Sequence Seq	
									sat Tox	136 121 121 127 127 128 148 148 148 154 154 154 154 154 154 157 154 154 154 154 154 154 154 154 154 154	
1052	992 426	932 367	872 349	812 338	752 278	692 219	632 160	572 100	Query Match Best Local S Matches 397	1368 ACCTCAG  1213 GCCGGTG  1428 CATCACA  1428 CATCACA  1428 CATCACA  1428 GACCCAC  1433 CAAGCTG  1448 GACCCAC  1333 CAAGCTG  1548 CAGAGGA  15	
မ္ပ	ASC ASC	AAC	: IG	A-A	3=3	8=8		8=8	7 1		
G	§=§	8=8 E=8	AGC	9=9 9=9	6 = 6 - 6	CAED HEAC	TAC HAC	6—6 6—6 6—6	lar	368 ACCTCAGGTC 213 GCCGGTGGAC 428 CATCACATAC 273 CTTCACATAC 273 CTTCACATAC 273 CAAGCTGCCC 333 CAAGCTGCCCC 333 CAAGCTGCCC 333 CAAGCTGCCCC 333 CAAGCTGCCC 33 CAAGCTGCCC 33 CAAGCTGCCCC 33 CAAGCTGCCCC 33 CAACCTGCCC 33 CAA	
GG	SATG	AGA GA	Tico	TACA	1 1 1 1 1 1 1	8=8	8 <u>—8</u>	JAGC	ity	GGACA GGACA CATCA CTTCC	
GGGGGTGGCCCAGGG	8 	AAAC AAAAC	999	1966		AGC			13 80 ativ	1368 ACCTCAGGTCACGTCGG 1213 GCCGGTGGACAGTCCTG 1428 CATCACAATCACCACCC 1273 CTTCACATACGTGGGCC 1273 CTTCACATACGTGCCCCAGT 1333 CAAGCTGCGCTCACCCA 1548 GACCCACTTCCCCCAGT 1333 CAAGCTGCGCTCACCCA 1548 CAGAGGACGCACGCTCG 1548 CAGAGCACGCTCACCCA 1548 CAGAGCACCACCTCACCCA 1548 CAGAGCACCACCTCACCCA 1548 CAGAGCACCACCTCACCCAC 1548 CAGAGCACCACCTCACCCAC 1548 CAGAGCACCACCTCACCCAC 1548 CAGAGCACCACCTCACCCAC 1548 CAGAGCACCACCTCCACCCAC 1548 CAGAGCACCACCACCCACCCACCCACCCACCCACCCCACCCACCCC	
C 10	GGAC	01 - CA	CCIG		6425 		0 	8=8 8=8	13.8%; illarity 80.2%; Conservative	1368 ACCTCAGGTCACGTCGAGGTCACGTCCGAGGTCACATCACCAATCACCACCCCTTC  1273 CTTCACATACGTGCGCCCCTTC  1273 CTTCACATACGTGCGCCCCTTC  1273 CAAGCTGCGCTCACCCAGGTCCTACCCAGGGTCACCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGGTCACCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCAGGTTCCCCCCCC	
99	ACCCCAGATGCCCGGGACCTTGTCAAAAAGTTTCTGAAACGGAATCCCAGCCAG	AACCGGAAGAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCTACCTC	TGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACCGCAGAG	ATTGAGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGACTGG           ATTGAGTACAT	TTIGGACTCTGCAAGGAGTCTATCCATGAGGGGGCCGTCACTCAC	CGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCAGGCCACGATCAACTGACCGAC	TICTACCIGGCIGAGAICACGCIGGCCCTGGGCCAITCCCACTCCCAGGGCAICAICTAC	GGTGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGGATCTTCCTGGAAGATACGGCCTGC		ACCTCAGGTCAGGTCGAGGTCGACACAAGGTACTTCGATGAATTTACCGCCCAGTCGCCCAGGTCAAGGTCACAAGGTACTTCGATGAATTTACCGCCCAGTCGCCCCCCCC	
	\$\$	AGA GA	PACE:	TIC		THE CA	8=8 ==8	6=6 6=6	Score Pred.	GGTCGACJ TGACACAC	
	100 100 100 100 100 100 100 100 100 100		ACAT	IGGT	ATGA			AGCG	re 251.4; d. No. 1e Mismatche	CACAAGE COTOGACAGE COTOGACACAGE COTOGACACACACACACACACACACACACACACACACACACAC	
	9-9 3-1	24 25 26 26 26 26 26 26 26 26 26 26 26 26 26	- 6	GCGC	6-6 6-6		8 <u>—8</u>	AGAG	.4; 1e- ches	TCAG ACAG CTAG CTAG CTAG CTAG CTAG CTAG	
	8=8 8=8	8=8 0=8	- ACT	AGTO	6 <u>—</u> 6	86-C		6 — 6 6 — 6	DB 49;	Trotei	
	AAC	8-8 6-6	GAT	900	<u>ğ</u> =ğ	74. 	6-6 6-6	1=1	4 4	eins	
	GAA	6 	6—6 6—6	C S	\$=\$ H=H	3 <u>—3</u> 3			Length Indels	GATG GCCA GCCA GLAGG GAGG	
		ACTG	9 	CCG	2 2 2 3 3 3 3 3 3 3		827 127 127 127 127 127 127 127 127 127 1	9=9 \$=\$	gth els	AAATTI ACCA TTGGA GAGC	
	AGCC	0-0		GCTG		AAA 	8 = 8 = 8 = 8	GATI	503; 95	AGTO	
	AGC	3=3	8 8 8 8 8	TGG	6-6 6-6 6-6 6-6			9—9 9—9 9—9	••	3GCC	
		3=3	24C 	Cig	8=8 8=8	2 = 2 2 = 2 2 = 2 2 = 2		3=3 	Gaps	- CAG- -	
	T 105	C 991	G 366	3 871 - 348	C 811 C 337	C 751	C 691	C 159			
	4 51	5 1	6 L	<b>6</b> , Р	1	1	8 1	9 1	5	1427 1272 1487 1332 1547	

망

Search completed: July 3, 2004, 10:10:31 Job time: 153 secs

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlh
-MODEL-frame+ p2n.model -DEV=xlh
-Q-/cgn2_1/USPTO_Spool/US03762258/runat_30062004_165608_13618/app_query.fasta_1.647
-DB=Issued_Patents_NA -QPMT-fastap_-SUPFIX=rni -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS-Dits -START=1 -END=-1 -MATRIX+Dissum62 -TRANS-human40.cdi
-LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=100 -THR MIN=0 -ALIGN=15
-MODE=LOCAL -QUIFMT=pto -NORM=ext -HBAPSIZE=500 -MINLEN=0 -MAXLEN=20000000
-USER=US09762258_8CGN 1 1 69 @runat_30062004_165608_13618 -NCPU=6 -ICPU=3
-NO_WMAP -LARGEQUERY -NEG_SCORES=0 -MAIT -DSPHJOCKS=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
       210000700700
                                                                                                                                                                                                                                                                                                        Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
     1947.55
1385.55
1385.55
805.55
802.55
802.55
802.55
802.55
802.55
802.55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BC
                                                                                                                                                                                                                          Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        seq length: 0
seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xgapop 10.0 , Xgapext
Ygapop 10.0 , Ygapext
Fgapop 6.0 , Fgapext
Delop 6.0 , Delext
                                                                                                                                                                                                                       Match Length
                                                                                                                                                                                                                                         Query
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Issued_Patents_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    July
     99.2
74.5
53.0
53.0
53.0
36.0
30.9
30.7
30.7
30.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         682709 segs, 277475446 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-762-258-2
2614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MARGRRARGAGAAMAAVFDL.....
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd
                                                                                                                                                                                                                                                                                                                                                                        /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
/cgn2_6/ptodata/2/ina/5B_COMB.seq:*
/cgn2_6/ptodata/2/ina/6A_COMB.seq:*
/cgn2_6/ptodata/2/ina/6B_COMB.seq:*
/cgn2_6/ptodata/2/ina/BCTUS_COMB.seq:*
/cgn2_6/ptodata/2/ina/backfiles1.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3, 2004, 10:07:57; Search time 115 Seconds
(without alignments)
2388.702 Million cell updates/sec
   1637
2556
1607
1607
1609
2370
2311
2311
2311
2311
2311
                                                                                                                                                                                                                         멂
US-09-430-564-1
US-08-966-316-10
US-08-917-310-1
US-08-749-902-4
US-09-016-434-118
US-09-016-434-118
US-09-031-295-1
US-08-712-709-6
US-09-111-444-6
US-09-016-434-772
US-09-256-465-1
                                                                                                                                                                                                                         ㅂ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7.00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PIRPPSGTKKSKRGRGRPGR
                                                                                                Sequence 1, Appli
Sequence 10, Appli
Sequence 1, Appli
Sequence 4, Appli
Sequence 126, App
Sequence 118, App
                                                  Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                 Sequence
Sequence
                                                                                                                                                                                                                     Description
                1, Appli
6, Appli
6, Appli
6, Appli
772, App
 Appli
```

ů	44	ů	42	41	9	9	38	37	36	u S	ւ 4	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	<u>1</u> 8	17	91	15	14	13
Ψ	32		39.	u	v	v	v	61.		ጥ	ጥ	~1	œ	8	•	9	ø	٠	0	$\vdash$	52.		52.	67.	67.	67.	67.	œ	96.	96.	797.5	97
	24.2							ŗ	ŗ	ŗ	'n	ŗ	ė	ŗ	•	σ.	'n	σ,	.~	.~	œ	œ	8	۰	۵	۰	۰	9	0	0	9	0
79	2104	5	3	8	74	14	5	5	Š	5	4	23	2	25	63	3	2	::	*	24	27	27	27	£1	51	5	18	18	27	27	1599	59
4,	4.	W	ω	4	4	4	4.	4.	Φ	4.	W	4,	4,	44.	4.	4	w	۲	4	4	W	W	Ŋ	4	W	N	4,	4.	ហ	<b></b> -	4,	4.
17-197-13	-09-023-655-	-09-313-930-	-09-429-322-	-09-566-921-	-09-023-655-1	-09-B42-307-	-09-394-455-	-09-394-455-3	66464-1	09-394-45	-09-467-082-	-09-023-655-	-09-772-647-	-09-016-434-14	-09-016-434-143	-09-417-19	-09-094-714A-	-08-313-274-	-08-685-852-	-09-225-749-2	-206-188B-2	-09-146-249A-	-08-474-379C-2	-09-023-655-12	-09-091-058-	12-771	09-417-197-1	09-417-197-7	1-02714-2	07-688-352C	-09-023-655-10	67-322-
equence 136, A	quence 1191,	equence 1, App	equence 3, App	equence 52, Ap	equence 1362,	equence 1, App	equence 14, Ap	equence 35, Ap	tent No. 52664	equence 5, App	equence 3, App	equence 1361,	equence 3, App	equence 1471,	equence 1433,	equence 72, Ap	equence 48, Ap	equence 1, App	equence 1, App	equence 24, Ap	equence 25, Ap	equence 25, Ap	equence 25, Ap	equence 1206,	equence 1, App	equence 1, App	equence 138, A	equence 70, Ap	equence 24, Ap	equence 25, Ap	equence 1004,	equence 3, App

## ALIGNMENTS

```
Ś
                                                                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                           Score:
                                                US-09-762-258-2 (1-495) x US-09-430-564-1 (1-1732)
                                                                                                    Query Match:
                                                                                                                                                                                                                                 US-09-430-564-1
                                                                                                                                                                         Pred. No.:
                                                                                                                                                                                          Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 1
US-09-430-564-1
                                                                                                                                                                                                                                                                                                      SOFTWARE:
SEQ ID NO 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1, Application US/09430564
Patent No. 6372467
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                   TITLE OF INVENTION: P5456K AND P8556K GENES, PROTEINS, TITLE OF INVENTION: PRIMERS, PROBES, AND DETECTION MET FILE REPERENCE: 00246/506002

CURRENT APPLICATION NUMBER: US/09/430,564

CURRENT FILING DATE: 1999-10-29

PRIOR APPLICATION NUMBER: 60/106,141

PRIOR FILING DATE: 1998-10-29

PRIOR FILING DATE: 1998-10-29

PRIOR FILING DATE: 1998-10-29

PRIOR FILING DATE: 1998-10-29
                                                                                                                                                                                                                                                LENGTH: 1732
TYPE: DNA
ORGANISM: Homo:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: John Blenis
APPLICANT: Kay K. Lee-Fruman
APPLICANT: Calvin J. Kuo
             Ç
ArgArgAlaArgGlyAlaGlyAlaMetAlaAlaValPheAspLeuAspLeuGluThr 24
                                                                                                                                                                                                                                                                                                                       FastSEQ for Windows Version 4.0
                                                                                                                                                                                                                                                  sapiens
                                                                                                  2594.00
100.00%
100.00%
99.23%
                                                                                                                                                                         9.39e-215
                                                                                                    Conservative: Mismatches: Indels:
                                                                                Gaps:
                                                                                                                                                        Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      DETECTION METHODS
                                                                                  1732
491
0
```

밁

ø

밁

189

65

85

129

45

Ś

25

1208

```
GluGluAspValSerGlnPheAspThrArgPheThrArgGlnThrProValAspSerPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluAsnArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGGAAGGCAGCGAGGGCGAGGCCAGAGCTCAGCCCCGCGGACGCATGTCCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluGluGlySerGluGlyGluGlyGluProGluLeuSerProAlaAspAlaCysProLeu
                                                                                                                                                                                             AsnTrpAspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSer
                                                                                                                                                                                                                                                                                      ATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrIleGluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAsp 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TyrArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ValleuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsn 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GluThrSerValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeuArg
                                                                                                                                                               AATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCCTGTCTGCAGTCA
                                                                                                                                                                                                                                                                                                                           IleGlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGTGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACCGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TrpTrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTITIGGACTOTIGCAAGGAGTOTATIOCATGAGGGCGCCGTCACTCACACCTTCTGCGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIle 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SerGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAla 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GACACAGCACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspThrAlaHisThrArgAlaGluArgAsnIlebeuGluSerValLysHisProPheIle 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTGGGCAAAATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATGCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaGluLeuArgAlaAlaGlyLeuGluProValGlyHisTyrGluGluValGluLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                 AGTGGTGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGCCATCTTCCTGGAAGATACGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGCCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLys 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCGAGTTGAGGGCAGCTGGCCTAGAGCCTGTGGGGACACTATGAAGAGGTGGAGCTGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCATTGAGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCTTCTACCTGGCTGAGATCACGCTGGCCCTGGGCCCATCTCCACTCCCAGGGCATCATC
                                                                                                                                                               1088
                                                                                                                                                                                                                       364
                                                                                                                                                                                                                                                                                      1028
                                                                                                                                                                                                                                                                                                                                                     344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         806
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           788
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        608
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        128
                                                                                                                                                                                                                                                                                                                                                                                                                 968
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 2

US-08-966-316-10

; Sequence 10, Application US/08966316

; Patent No. 5932445

; Patent No. 5932445

; GENERAL INFORMATION:
APPLICANT: Lal, Preeti
; APPLICANT: Reddy, Roopa
; APPLICANT: Murry, Lynn B.
; APPLICANT: Morry, Lynn B.
; CORRESPONDENCES: 18
; CORRESPONDENCE ADDRESS:
; CORRESPONDENCE ADDRESS:
; CORRESPONDENCE ADDRESS:
; ELENGTH: 1637 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; INMEDIATE SOURCE;
; LIBRARY: SKINBITO1
; CLONE: 1869688
US-08-966-316-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ó
                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:

MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/966,316
FILING DATE: Herewith
CLASSIFICATION DATA:
APPLICATION NUMBER:
FILING DATE: HOPERATION:
APPLICATION NUMBER:
APPLICATION NUMBER:
APPLICATION NUMBER:
APPLICATION NUMBER:
APPLICATION NUMBER:
APPLICATION NUMBER:
APPLICATION STANDARD S
                                                                                                                                                                                                                                                  TELEX:
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET: 3174 PORT
CITY: Palo Alto
STATE: CA
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSIE: Incyte Pharmaceuticals, STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1449 AAGTECAAGAGGGGCCGTGGGCGTCCAGGGCGC 1481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           485 LysSerLysArgGlyArgGlyArgProGlyArg 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4.
0.0
1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 445
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProSerValLeuAspSerIleLysGluGlyPheSerPheGlnProLysLeuArgSerPro 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProProProProProSerThrThrAlaProLeuProIleArgProProSerGlyThrLys 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyPheArgProSerProSerLeuProGluProThrGluLeuProLeuProProLeuLeu 464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgArgLeuAsnSerSerProArgValProValSerProLeuLysPheSerProPheGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGTTTCGGCCCAGCCCAGCCTGCCGGAGCCCACGGAGCTACCTCTACCTCCACTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGGCGCCTCAACAGTAGCCCCCGGGTCCCCGTCAGCCCCCTCAAGTTCTCCCCCTTTTGAG 1328
```

PROTEINS

1448

1388

444

S

205 549 185 489 165 429 145 369 125 309 105 249

609

B S g ð 밁 5 밁 ર્શ B S 밁 S Ŗ S g Ś

밁 ঠ

365

밁

969 325 909 305 849

Ś 문 8 밁 δ 문 Ś 밁 5 밁 S 밁

> 285 789 265 729 245 599 225

문 δ

8 밁

1199

```
Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-762-258-2 (1-495) x US-08-966-316-10 (1-1637)
                                                  1020
                   308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scores:
                                                                                 288
                                                                                                                  960
                                                                                                                                                268
                                                                                                                                                                                 900
                                                                                                                                                                                                               248
                                                                                                                                                                                                                                                840
                                                                                                                                                                                                                                                                               228
                                                                                                                                                                                                                                                                                                                780
                                                                                                                                                                                                                                                                                                                                                208
                                                                                                                                                                                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                                                                                                                                188
                                                                                                                                                                                                                                                                                                                                                                                                                                               999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 φ
pAlaArgAspLeuValLysLyssheLeuLysArgAsnProSerGinArgIleGlyGlyGl
                                                GAAAACCATGGATAAGATCATGAGGGGCAAGCTGGCACTGCCCCCTACCTCACCCCAGA
                                                                                                               uGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGluAsnArgLy
                                                                                                                                                                                                                                                uCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThrIleGluTy
                                                                                                                                                                                                                                                                                                                                                                                                uAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyrArgAspLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 uLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCysPheTyrLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrArgAlaGluArgAsnIleLeuGluSerValLysHisProPheIleValGluLeuAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAspThrAlaHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   G1yG1yTyrG1yLysVa1PheG1nVa1ArgLysVa1G1nG1yThrAsnLeuG1yLysI1e
                                                                   SLYSThrMetAspLySIleIleArgGlyLysLeuAlaLeuProProTyrLeuThrProAs
                                                                                                                                                                                 CATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGAGCCT
                                                                                                                                                                                               rMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrpTrpSerLe
                                                                                                                                                                                                                                                                                                                CHAGCCCGAGAACATCATGCTCAGCAGCCAGGCCACATCAAACTGACCGACTTTGGACT
                                                                                                                                                                                                                                                                                                                                            uLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAspPheGlyLe
                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCTACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGGATTGCCTCAGTGGTGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIle-LeuGluCysLeuSerGlyGlyGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACACGGGC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGTGTGCTGGGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeuArgValLeuGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AlaAlaGlyLeuGluProValGlyHisTyrGluGluValGluLeuThrGluThrSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GiuGlyGiuGlyGluProGluLeuSerProAlaAspAlaCysProLeuAlaGluLeuArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyAlaGlyAlaAlaMetAlaAlaValPheAspLeuAspLeuGluThrGluGluGlySer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGCCGCCCCCCCATGGCCGGCCGTGTTTGATTTGGATTTTGGAGACGGAGGAAGGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6.27e-159
1947.50
90.89%
90.44%
74.50%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              128
                                                                                                                  1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                148
                                                1079
                                                                                                                                                288
                                                                                                                                                                                 959
                                                                                                                                                                                                                268
                                                                                                                                                                                                                                                  899
                                                                                                                                                                                                                                                                                 248
                                                                                                                                                                                                                                                                                                                839
                                                                                                                                                                                                                                                                                                                                                228
                                                                                                                                                                                                                                                                                                                                                                                 779
                                                                                                                                                                                                                                                                                                                                                                                                              208
                                                                                                                                                                                                                                                                                                                                                                                                                                               719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1, Application US/09817310

Patent No. 6534311

GENERAL INFORMATION:

APPLICANT: Kozmat, Mary

APPLICANT: Kozmat, Sarah

APPLICANT: Kozmat, Sarah

APPLICANT: Thomas, George

FITTLE OF INVENTION: Drosophila Melanogaster P70 S6 Kinase

FILE REFERENCE: 4-20971/A

CURRENT APPLICATION NUMBER: US/09/817,310

CURRENT APPLICATION NUMBER: US/09/817,310

CURRENT FILING DATE: 2001-03-26

PRIOR APPLICATION NUMBER: 09/230,247

PRIOR FILING DATE: 1999-04-16

NUMBER OF SEQ ID NOS: 5

CONTRADE: DATE: 1999-04-16
                                                                                                                                                                                                                                                                                                                                                              ; SEQ ID NO 1
; LENGTH: 2556
; TYPE: DNA
; ORGANISM: Drosophila π
US-09-817-310-1
                                                                                                                                                            Ş
                   Ś
                                                              밁
                                                                                              8
 몂
                                                                                                                               먕
                                                                                                                                                                                                                                                              Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
US-09-817-310-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                               US-09-762-258-2 (1-495) x US-09-817-310-1 (1-2556)
                                                                                                                                                                                                                                                  Query Match:
                                                                                                                                                                                                                                                                                                               Alignment Scores:
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             591
                                                                                                                                471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              368
                                                                                               24 ThrGluGluGlySerGluGlyGluGlyGluPro-----GluLeuSerProAlaAsp
CTAGAACCG-----GAATTGTGTATTAATCTGCACCAAGACACTGAGGGCCAGGAGACC
                               AlaCysProLeuAlaGluLeuArgAlaAlaGlyLeuGluProValGlyHisTyrGluGlu
                                                                                                                                GCAATGGCGGACGTGAGCGATCCCAGCGAACTGTTCGACCTGGAGCTGCACGACCTGGAA
                                                                                                                                                                 AlaMetAlaAlaVal---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCACCTINCNGNGCCAAGGAGTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AANATAGCCCCGGG---TCCGTNAGCCCC-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              euAspSerIleLysGluGlyPheSerPheGlnProLysLeuArgSerProArgArgLeuA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C-CTCAGCGAGAGTGCCAACAAGACCTTCCTGGGGTT-ACATAAGTGCGCG-TCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  laLeuSerGluSerAlaAsnGlnAlaPheLeuGlyFheThrTyrValAlaProSerValL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -- GAGCAGTTTGATACCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pLeuLeuAlaTrpArgValAspProProPhe-ArgProCysLeuGlnSerGluGluAspV 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 yProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsnTrpAspAs 348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              roSerProSerLeuProGluProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           snSerSerProArgValProValSerProLeuLysPheSerProPheGluGlyPheArgP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGACAG-ATCAAGAGG---TTCTCTTTCAGCCCAAGT-----GGGTCAACCAGGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  alSerGinPheAspThrArgPheThrArgGlnThrProValAspSerProAspAspThrA 388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTT-CTGGCCTGGCGTGTGGANCCCCCTTTCAAGGCCCTGTCTGCAGTCAGAGGAGACGT 1258
                                                                                                                                                                                                                                                4.3e-116
1455.00
66.73%
57.12%
55.66%
                                                                                                                                                                                                                                                                                                                                                                               melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTTCACACGGCAGACGCCGGTGGACAGTCCTGATGACACAG 1316
                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                Gaps:
                                                                                                                                                            -----PheAspLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ---TCAAGTTTNCCCTTTNAGGGTTCGGCCA
                                                                                                                                                                                                                             309
52
115
10
```

1477

428

1423

408

1373

S 밁 S 8 ঠ 皮 S 밁 Ş 밁 5 맑 Ş 당 Ş 밁 Ş 뭥 5 占 δ 8 Ş Dβ Ś 망 Ś 맑 Ş

-AspLeuGlu

40

530 23

590

9

ArgProSe 449

1838

446

436

1898

462

```
CysLeuGlnSerGluGluAspValSerGlnPheAspThrArgPheThrArgGlnThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ValAspSerProAspAspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGiyPhe 400
                                                                                                                                                                                                                                                                                                                                                                                          GAACCTCAGCGCCTTGGCAGCGGACCCGAGGATGCGGCGGCTGTTCAAATACACCCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuProProTyrLeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsn 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ArgAlaValAspTrpTrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerPro 280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlnGlyThrAsnLeuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleVal 120
  ACCTACGTTGCACCCTCGATACTGGAGGATATGCATCGG-----GCCAACCGGATGCCA 1718
                            ThrTyrValAlaProSerValLeuAspSerIleLysGluGlyPheSerPheGlnProLys
                                                                                             GTGGATTCCCCTGATGATACAACGCTAAGCGAAAGTGCCAATTTAATTTTCCAAGGTTTC
                                                                                                                                                                                                                                                                                                                       PheArgHisMetAsnTrpAspAspLeuLeuAlaTrpArgValAspProProPheArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                            ProSerGlnArgIleGlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhe 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGCCAGCCTACCTCACACCGGAAGCCAGGGATCTGGTGCGTCGCCTGATGAAGCGGCAG 1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProPheThrAlaGluAsnArqLysLysThrMetAspLysIleIleArgGlyLysLeuAla 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrPheCysGlyThrIleGluTyrMetAlaProGluIleLeuValArgSerGlyHisAsn 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GTGAAGCTCACGGACTTTGGACTGTGCAAGGAGCACATACAAGAGGGTATTGTCACCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlnGlyIleIleTyrArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHis 220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GluAspThrAlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSer 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuGluCysLeuSerGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeu 180.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HisProPheIleValGluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIle 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ArgAsnAlaLysAspThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLys 140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGCTCAAGAAGGTCCTTGGCAAAGGCGGTTATGGCAAAGTATTTCAGGTGCGCAAGACC 764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluLeuLeuArgValLeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysVal 100
                                                                                                                                                                                                CTCTTGAGAAGCGAGGATGATGTCTCACAGTTCGATACAAGATTCACAAGACAAATTCCA
                                                                                                                                                                                                                                                                                        TTCAAACACGTCAACTGGGACGATGTGCTCGCCAGACGCCTCGAGCCGCCTATAAAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTTCACCGCCGAGAATCGCAAGAAGACCATCGAGACCATTCTGAAAGCCAAGCTCAAT 1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAGCAGTCGACTGGTCACTGGGCGCTCTCATGTTTGACATGCTCACAGGAGTCCCA 1304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCTTCTGCGGCACAATTGAGTACATGGCACCTGAAATTTTGACCAGAAGTGGCCATGGC 1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IleLysLeuThrAspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHis 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTGGGCATCATCTACCGCGATCTGAAGCCCGAGAACATACTGCTCGATGCACAGGGACAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGATACCACATGCTTCTATCTAAGCGAAATCATTTTGGCCTTGGGCCATCTACACAAA 1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTGAATATCTCAGCGGTGGAGAGCTGTTCATGCATTTGGAGCGTGAGGGCATCTTCTTA 1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCAATCAAAAGGACACAGCGCACACCCGCGGGGGCAATATACTCGAGGCAGTCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCTGGACGAGATGCTAACAAATATTTTGCCATGAAGGTGCTCAAAAAAGGCATCCATTGTG
                                                                                                1664
                                                                                                                                                                                             1604
                                                                                                                                                                                                                                            380
                                                                                                                                                                                                                                                                                          1544
                                                                                                                                                                                                                                                                                                                                         360
                                                                                                                                                                                                                                                                                                                                                                                          1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 4
US-08-749-902-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    $
                                                                                                                                                                ATTORNEY AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0.
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEPAX: 415-85-0456
INFORMATION FOR SEQ ID NO: 4:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 4, Application Patent No. 5985635
GENERAL INFORMATION:
APPLICANT: Bandman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatib:
OPERATING SYSTEM: DOS
                                         SEQUENCE CHARACTERISTICS:
LENCTH: 1607 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                     SOPTWARE: FASTSEQ Version 2.0 CURRENT APPLICATION DATA: APPLICATION UMBER: US/08/749, FILING DATE: Filed Herewith PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Goli, Surya K.
APPLICANT: Hillman, Jennifer L.
TITLE OF INVENTION: NOVEL HUMAN SERINE/THREONINE
TITLE OF INVENTION: PROTEIN KINASES
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
  IMMEDIATE SOURCE:
CLONE: Consens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 3174 Por-
CITY: Palo Alto
STATE: CA
COUNTRY: US
ZIP: 94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEB: INCYTE PHARMACEUTICALS, STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2079 A 2079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , Application US/08749902
5985635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LeuArgSerProArgArg-LeuAsnSerSerProArgValProValSer---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       oLeuLeuProProProProSerThrThrAlaProLeuProIleArgPro-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCGGCGCAGGACGAGATGATGGACGTGCAGGGTCTGCCGATGGTCTAAAGGCTGGAGCG 1958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGGGATGTTTGCACGAGCCACGCCGCCGCCGCATCACATGCAGACATTTGCGCCGCGTTCCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCACGCTCCCCACGACGCACTCCACGCCAGCTGCCGGACAGCAGCTTCCGCCTGCAGTTC 1778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTGCTTCCCAACCAACCAACCCATCCCATCCCGTCCGTTCCGTCGCAACCCAGCAACTG
Consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      rProSerLeuProGluProThrGlu-----LeuPro-----LeuProPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCATCGGCCAATGTGGGCGCCAATGCGCCTGCTGGCCATGCACGGTCATTCGCAGCGATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -----ProLeuLysPheSerProPheGluGlyPhe-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Bandman, Olga
```

밁 5 밁 δ g Ş 8 S 문 δ 밁 5 맑 Ś 문 Ş 맑 5 밁 S ₽ Ś B Ś Ď, 8 몽 8 밁 .5 g S 밁 8 밁 Ś

401

1545

341

381

1365

บร/08/749,902

PF-0150

S

321

1305

281

1185

241

261

1125

221

1065

201

1005

181 945 885 141 825 121 765 101 705 81

161

ProSerGlyThriysLysSerLysArgGlyArgGlyAr 492

2018

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment
Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-762-258-2 (1-495) x US-08-749-902-4 (1-1607)
                                                           1018
                       336
                                                                                                                                  958
                                                                                                                                                                   296
                                                                                                                                                                                                       868
                                                                                                                                                                                                                                           276
                                                                                                                                                                                                                                                                              838
                                                                                                                                                                                                                                                                                                                                                                                                                            718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   999
                                                                                                                                                                                                                                                                                                                                                                                         254
                                                                                                                                                                                                                                                                                                                                                                                                                                                             245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        48
5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACTTCAACGAGCTGGAGGCCAGCGTGGTGCAGGACGTGGCCAGCGCCTTGGACTTT
nArgH1sProPhePheArgHisMetAsnTrpAspAspLeuLeuAlaTrpArgValAspPr
                                                       gGlyLysieuAlaieuProProTyrLeuThrProAspAlaArgAspLeuValLysiysPh
                                                                                                                                                                                                                          uThrGlySerProProPheThrAlaGluAsnArgLysLysThrMetAspLysIleIleAr
                                                                                                                                                                                                                                                                            GCCCTTCGTGGGCCGCTGGCAGCGACTGCGGCTGATGTACGACATGCT
                                                                                                                                                                                                                                                                                                   nArgAlaValAsp---TrpTrpSer------LeuGlyAlaLeuMetTyrAspMetLe
                                                                                                                                                                                                                                                                                                                                                                                                                        GGCGGAGTACATGGCCCCGGAGGTAGTGGAGGCCTTCAGCGAGGAGGCTAGCATCTACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                         rlleGluTyrMetAlaProGluIle-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGATTGAGTTC---
                                                                                                                                                                                                     CACTGGATCGCCGCCTTTACCGCAGAGAACCGGAAGAAACCATGGATAAGATCATCAG
                                                                                                                                                                                                                                                                                                                                                   CAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTTGTATATCCTACTCAGCGGCTACCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AACGGGGACTGCTCCCCTAT-CTCCACCCCGGAGCTGCTCACTCCG-----TGCGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCCAACCAGGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCAAACTC 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCATAACAAAGGCATCGCCCACAGGGACCTAAAGCCGGAAAAACATCCTCTGTGAGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuHisSerGlnGlyIleIleTyrArgAspLeuLysProGluAsnIleMetLeuSerSer 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IlePheLeuGluAspThrAlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHis 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SerValLysHisProPheIleValGluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeu 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCACCAGCCAGGAGTACNCCGTCAANATCATTGNTTTTTTTTTCAGGCCACATTCGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TACCTGGTGTTTGAGAAGATGCGGGGAGGCTCCATCCTGAGCCACATCCACAAGCGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TyrLeuIleLeuGluCysLeuSerGlyGlyGluLeuPheThrHisLeuGluArgGluGly 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGGTTTTCAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGGAACGTCCTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LysIleValArgAsnAlaLysAspThrAlaHisThrArgAlaGluArgAsnIleLeuGlu 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsnLeu 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----GlyLysIleTyrAlaMetLysValLeuArg------LysAla 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTGGGGGAGGGCGCTCATGCCCGAGTGCAGACCTGC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----CysLysGluSerIleHisGluGlyAla-ValThrHisThrPheCysGlyTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2.21e-110
1385.50
70.65%
61.96%
53.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                      ----LeuValArgSerGlyHisAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ---TTCGAGGAGGAGGACCGCTTC 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1607
285
40
69
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ----ATTAACCIG
                                                         1077
                                                                                            336
                                                                                                                                1017
                                                                                                                                                                   316
                                                                                                                                                                                                       957
                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                            897
                                                                                                                                                                                                                                                                                                               276
                                                                                                                                                                                                                                                                                                                                                   837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         484
                                                                                                                                                                                                                                                                                                                                                                                                                          777
                                                                                                                                                                                                                                                                                                                                                                                                                                                           253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 5
US-09-016-434-126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밝
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
   TELEPAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 12
SEQUENCE CHARACTERISTICS:
LENGTH: 1607 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 126, Application US/09016434

Patent No. 6500938

GENERAL INFORMATION:
APPLICANT: Janice Au-Young
APPLICANT: Jarice Au-Young
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
                                                                                                                          CLASSIFICATION:
ATTORINEY/AGENT INFORMATION:
ATTORINEY Zeller, Karen J.
REGISTRATION NUMBER: 37,071
RESCHRINGE/DOCKET NUMBER: PA-0
TELECOMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                       SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/016,434
FILING DATE: HEREWITH
CLASSIFICATION:
                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PH
                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1078 GAGACATCCCTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCC 1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    4
5
6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PALO ALTO
CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CATCCGTCCCCCCCCAGGGCCAAGAGTCCAAGAGGGGGCCGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            olleArgProProSerGlyThrLysLysSerLysArgGlyArgGlyArgProGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rGluLeuProLeuProProLeuLeuProProProProProSerThrThrAlaProLeuPr 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rProLeuLysPheSerProPheGluGlyPheArgProSerProSerLeuProGluProTh 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    oProPheArgProCysLeuGlnSerGluGluAspValSerGlnPheAspThrArgPheTh 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCCCTCAAGTTCTCCCCTTTTGAGGGGTTTCGGCCCAGCCCCAGCCTGCCGGAGCCCAC 1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CTTCCAGCCCAAGCTGCGCTCACCCAGGCGCCTCAACAGTAGCCCCCGGGTCCCGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rPheGlnProLysLeuArgSerProArgArgLeuAsnSerSerProArgValProValSe 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCTGGGCTTCACATACGTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACGGCAGACGCCGGTGGACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rArgGlnThrProValAspSerProAspAspThrAlaLeuSerGluSerAlaAsnGlnAl 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            aPheLeuGlyPheThrTyrValAlaProSerValLeuAspSerIleLysGluGlyPheSe 416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3174 PORTER DRIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INCYTE PHARMACEUTICALS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1490
                                                                                                                                                                   PA-0002
                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGCGTCCAGGGCGT 1555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SIGNALING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1317
```

Ş 망 Q 묽 ঠ 문 δ 밁 δ 망 5 뮹 ঠ 밁 5 ğ Ś 뫊 8 용 S 밁 S 문 Ś 맑 ð 밁 Ş 9 Ş

```
S
                                         밁
                                                                         S
                                                                                                                 문
                                                                                                                                      S
                                                                                                                                                                             문
                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                            及
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      よ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; IMMEDIATE SOURCE:
; LIBRARY: COLMFET02
; CLONE: 1309709
US-09-016-434-126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-762-258-2 (1-495) x US-09-016-434-126 (1-1607)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alignment Scores: Pred. No.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     No.:
                      316
                                                                                                                   868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      332
                                                   958
                                                                                  296
                                                                                                                                                276
                                                                                                                                                                                 838
                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                778
                                                                                                                                                                                                                                                                                                              718
                                                                                                                                                                                                                                                                                                                                             245
                                                                                                                                                                                                                                                                                                                                                                              665
                                                                                                                                                                                                                                                                                                                                                                                                             229
                                                                                                                                                                                                                                                                                                                                                                                                                                            509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         392
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CACTICAACGAGCTGGAGGCCAGCGTGGTGGTGGACGACGACGAGCGCCTTGGACTT 544
                                                                                                               UThrGlySerProProPheThrAlaGluAsnArgLysLysThrMetAspLysIleIleAr
 eLeuLysArgAsnProSerGlnArgIleGlyGlyGlyProGlyAspAlaAlaAspValGl
                                                                                                                                                                                                    nArgAlaValAsp---TrpTrpSer-----LeuGlyAlaLeuMetTyrAspMetLe
                                                                                                                                                                                                                                             CAAGCGCTGCGACCTGTGGAGCCTGGGCGTCATCTTGTATATCCTACTCAGCGGCTACCC 837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuHisSerGlnGlyIleIleTyrArgAspLeuLysProGluAsnIleMetLeuSerSer 217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IlePheLeuGluAspThrAlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHis 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsnLeu 105
                                                                      gGlyLysLeuAlaLeuProProTyrLeuThrProAspAlaArgAspLeuValLysLysPh
                                                                                                                                                                                                                                                                                                                                             rIleGluTyrMetAlaProGluIle------
                                                                                                                                                                                                                                                                                                                                                                          AACGGGGACTGCTCCCTAT-CTCCACCCGGAGCTGCTCACTCCG-----TGCGGCTC 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GinGlyHis-----IleLysLeuThrAspPheGlyLeu-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CIGCATAACAAAGGCATCGCCCACAGGGACCTAAAGCCGGAAAACATCCTCTGTGAGCAC 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACCTGGTGTTTGAGAAGATGCGGGGAGGCTCCATCCTGAGCCACATCCACAAGCGCCGG 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGATTGAGTTC------424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SerValLysHisProPheIleValGluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeu 157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGGTTTTTCAGGGAGGTGGAGATGCTGTACCAGTGCCAGGGACACAGGAACGTCCTAGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LysIleValArgAsnAlaLysAspThrAlaHisThrArgAlaGluArgAsnIleLeuGlu 137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCACCAGCCAGGAGTÁCNCCGTCAANATCATTGNTTTTTTTTTCAGGCCACATTCGGAGC 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -----GlyLysIleTyrAlaMetLysValLeuArg-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTGGGGGAGGGCGCTCATGCCCGAGTGCAGACCTGC------ATTAACCTG
                                                                                                                                                                                 GCCCTTCGTGGGCCGCTGGTGGCAGCGACTGCGGCTGGGACCGCTGATGTACGACATGCT
                                                                                                                                                                                                                                                                                                            GGCGGAGTACATGGCCCCGGAGGTAGTGGAGGCCTTCAGCGAGGAGGCTAGCATCTACGA 777
                                                                                                                                                                                                                                                                                                                                                                                                      CCCAACCAGGTCTCCCCCGTGAAGATCTGTGACTTCGACCTGGGCAGCGGCATCAAACTC 664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TyrLeuIleLeuGluCysLeuSerGlyGlyGluLeuPheThrHisLeuGluArgGluGly 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2.21e-110
1385,50
70.65%
61.96%
53.00%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative: Mismatches:
                                                                                                                                                                                                                                                                              ----LeuValArgSerGlyHisAs 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1607
285
40
69
67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ----LysAla 117
                                                   1017
                                                                                  . 316
                                                                                                                                                296
                                                                                                                                                                                 897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       271
                    336
                                                                                                                                                                                                              276
                                                                                                                   957
                                                                                                                                                                                                                                                                                                                                           253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 6
US-09-016-434-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   吊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
TELEPAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 118:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 118, Application US/09016434 Patent No. 6500938 GENERAL INFORMATION:
                                                                                                                                                                                                                                      COMPUTER READABLE PORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: ISM PC COMPATIBLE
COMPUTER: OF PC-DOS/MS-DOS
SOFTMARB: Word Perfect 6.1 for Windows/MS-DOS
SOFTMARB: Word Perfect 6.1 for Windows/MS-DOS
CURRENT APPLICATION NUMBER: US/09/016,434
                                                                                                                             FILING DATE:
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                          FILING DATE: HEREWITH CLASSIFICATION: PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Janice Au-Young
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
NUMBER OF SEQUENCES: 1490
CORRESPONDENCE ADDRESS: INCYTE PHARMACEUTICALS, INC.
                                                                                                                                                                                                                                                                                                                                                           COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                         STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1498 CATCCGTCCCCCTCAGGGACCAAGAAGTCCAAGAGGGGCCGTGGGCCGTCCAGGGCCT 1555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1018 TCTGAAACGGAATCCCAGCCAGCGGATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCA 1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    376
                                                                                                                                                                                                                                                                                                                                                                                        T: 3174 PORTER DRIVE
PALO ALTO
: CALIFORNIA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           oIleArgProProSerGlyThrLysLysSerLysArgGlyArgGlyArgProGlyArg 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rGluLeuProLeuProProLeuLeuProProProProProSerThrThrAlaProLeuPr 476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rPheGlnProLysLeuArgSerProArgArgLeuAsnSerSerProArgValProValSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACGGCAGACGCCGGTGGACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCCAACCAGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rArgGlnThrProValAspSerProAspAspThrAlaLeuSerGluSerAlaAsnGlnAl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      oProPheArgProCysLeuGlnSerGluGluAspValSerGlnPheAspThrArgPheTh 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nArgHisProPhePheArgHisMetAsnTrpAspAspLeuLeuAlaTrpArgValAspPr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCCCTCAAGTTCTCCCCTTTTGAGGGGTTTCGGCCCAGCCCCAGCCTGCCGGAGCCCAC 1437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rProLeubysPheSerProPheGluGlyPheArgProSerProSerLeuProGluProTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTCCAGCCCAAGCTGCGCTCACCCAGGCGCCTCAACAGTAGCCCCCGGGTCCCCGTCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCCTGGGCTTCACATACGTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        aPheLeuGlyPheThrTyrValAlaProSerValLeuAspSerIleLysGluGlyPheSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGACATCCCTTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCCTGTGGACCC
                                                                                                                                                                                                                                                                                                                                                                              USA
                                                                                                                                                                                                                               HEREWITH
                                                                                  PA-0002
                                                                                  S
```

OF.

SIGNALING

1377

436

456

1317

416

1257

396

1197

356

ENGTH:

669 base pairs

```
RESULT 7
US-09-031-295-1
                                                                                                      밁
                                                                                                                                Ş
                                                                                                                                                                밁
                                                                                                                                                                                       S
                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                             뜅
                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             맒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ફ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-762-258-2 (1-495) x US-09-016-434-118 (1-669)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US-09-016-434-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Alignment Scores:
        Sequence 1, Application US/09031295
Patent No. 63261B1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IMMEDIATE SOURCE:
LIBRARY: BRAINOT11
CLONE: 1290913
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                  591
                                                                                                                                                                                               205
                                                                                                                                                                                                                            533
                                                                                                                                                                                                                                                         185
                                                                                                                                                                                                                                                                                       473
                                                                                                                                                                                                                                                                                                                   165
                                                                                                                                                                                                                                                                                                                                                 413
                                                                                                                                                                                                                                                                                                                                                                                                              353
                                                                                                                                                                                                                                                                                                                                                                                                                                          125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             173
                                                                                                     651 GANTITGGACTCTGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          გ
წ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ŋ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             v
                                                                                                                        AspPheGlyLeuCysLys 230
                                                                                                                                                                                                                                                                                                         SerGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ValLeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluThrSerValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeuArg
                                                                                                                                                                                    TyrArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThr
                                                                                                                                                                                                                                          CysPheTyrLeuAlaGiuIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIle
                                                                                                                                                                                                                                                                                                                                                 GTGGAACNGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCCCATCCTTGAGTNCCTC
                                                                                                                                                                                                                                                                                                                                                                   ValGluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeu
                                                                                                                                                                                                                                                                                                                                                                                                             GACACAGCACACAGGGGTGAGGGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATT
                                                                                                                                                                                                                                                                                                                                                                                                                              AspThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLysHisProPheIle 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTGGGCAAAATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATNCCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLys 124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GTGCTGGGCAAGGGGGCTATGGCAAGGTGTTCCAGGNGCGAAANGTGCAAGGCACCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GCCGAGTTGAGGGCAGCTGGCCTAGAGCCTGTGGGGACACTATGAA-----GAGGG-ACT.172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AlaGluLeuArgAlaAlaGlyLeuGluProValGlyHisTyrGluGluValGluLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GAGGAAGGCAGCGAGGGCGAGCCAAGCCCAACNCCGCGGACGCATGTNCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluGluGlySerGluGlyGluGlyGluProGluLeuSerProAlaAspAlaCysProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgArgAlaArgGlyAlaGlyAlaAlaMetAlaAlaValPheAspLeuAspLeuGluThr
                                                                                                                                                                  TACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGANC
                                                                                                                                                                                                                            TGTTC-TACCNGGCTGAGATCACGCTGGCCCTGGGCCATCT-CACTCCCAGGGCATCATC
                                                                                                                                                                                                                                                                                      AGTGGTGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGACCAGCGTGAACGTTGGCCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGT 232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CGACGGGCCGCNGGGGC-GGCGCCGCCAT-NGCGCCGTGTTTGATTTGGATTNNGAGACG
LANG, Florian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1.29e-72
942.00
90.71*
90.27*
36.04*
                                                                                                      668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7
9
1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204
                                                                                                                                                                                                                                                                                                                   184
                                                                                                                                                                650
                                                                                                                                                                                                                          590
                                                                                                                                                                                                                                                                                                                                                                            164
                                                                                                                                                                                                                                                                                                                                                                                                             412
                                                                                                                                                                                            224
                                                                                                                                                                                                                                                       204
                                                                                                                                                                                                                                                                                    532
                                                                                                                                                                                                                                                                                                                                                 472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24
```

```
ੂੰ ਸੂ
                                                   밁
                                                                              Ś
                                                                                                               ğ
                                                                                                                                            8
                                                                                                                                                                                                          8
                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                         US-09-762-258-2 (1-495) x US-09-031-295-1 (1-2370)
                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                        Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-031-295-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Versi
SOFTWARE: PATENTIN DATA:
APPLICATION NUMBER: US/09/031,295
FILING DATE: 26-FEB-199
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: DE 197-08-173.8
FILING DATE: 28-FEB-1997
AFTORMEY/AGENT INFORMATION:
NAME: Sandercock, Colin G.
REGISTRATION NUMBER: 31,298
REFERENCE/DOCKET NUMBER: 058315/0123
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELEPAX: (202) 672-539:
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE:
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: WALDEGGER, Tubingen
TITLE OF INVENTION: CELL VOLUME
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STREET: 3000 K St
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Ploppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY: U.S.A. ZIP: 20007-5109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
                                                                                                                                                                         128
                                                                                                                 361
                                                                                                                                                                                                                                                                                                           235 GAGCCTGAGCTTATGAATGCCAACCCTTCTCCT------
                                                                                                                                                 6B
                                                                                                                                                                                                                                                                                                                                            L)
                                                                                                                                                                                                                                                                           53 GluProValGlyHisTyrGluGluValGluLeuThrGluThrSerValAsnValGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nucleic acid
                                                 HisThrArgAlaGluArgAsnIle---LeuGluSerValLysHisProPheIleValGlu 146
                                                                                                                                            GlyGlyTyrGlyLysvalPheGlnValArg---LysValGlnGlyThrAsnLeuGlyLys
                                                                                                                                                                                                                                                                                                                                 GluProGluLeuSerProAlaAspAlaCysProLeuAlaGluLeuArgAlaAlaGlyLeu
||||||||||||
                                                                                                                 GGCAGTTTTGGAAAGGTTCTTCTAGCAAGACACAAGGCAGAAGAAGTG------
                                                                                                                                                                                                                                              --- CCACCAAGTCCTTCTCAGCAA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3000 K Street, N.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FOLEY & LARDNER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CONA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       672-5399
                                                                                                                                                                                                                                                                                                                                                                                                                       4.16e-60
806.50
61.34%
44.33%
30.85%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CELL VOLUME-REGULATED HUMAN KINASE
                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                         Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  #1.30
                                                                                                                                                                                                                                              ----ATCAACCTTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              H-SGK
                                                     465
                                                                                                                                                   107
                                                                                     127
                                                                                                                                                                                                                88
                                                                                                                                                                                                                                                                                                                                             52
                                                                                                                    408
                                                                                                                                                                                  360
                                                                                                                                                                                                                                               303
                                                                                                                                                                                                                                                                              72
```

```
RESULT 8
US-08-712-709-6
                                                                                                                                                                                                Sequence 6, Application US/08712709 Patent No. 5863780
                                                                                                        GENERAL INFORMATION:
ARPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Hawkins, Phillip R.
TITLE OF INVENTION: NOVEL HUMAN PROTEIN KINASES
                                CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals,
STREET: 3174 Porter Drive
                                                                                           NUMBER OF SEQUENCES:
                   STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  327
                                                                                                                                                                                                                                                                                                                          399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            466
                   Palo Alto
                                                                                                                                                                                                                                                                                                                        GlyPheThrTyrValAlaProSer 406
                                                                                                                                                                                                                                                                                                                                                                AAGTCCCCTGACAGCGTCCTCGTCACAGCCAGCGTCAAGGAAGCTGCCGAGGCTTTCCTA 1299
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATTCCGCAAGACACCTCCTGGAGGGCCTCCTGCAGAAGGACAGGACAAAGCGGCTC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGluAsn
                                                                                                                                                                                                                                                                                          GGCTTTTCCTATGCGCCTCCCACG 1323
                                                                                                                                                                                                                                                                                                                                                                                                                                     GAGCTACGGCACTTTGACCCCGAGTTTTACCGAAGAG---CCTGTCCCCAACTCCATTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GATGATCTCATTAATAAGAAGATTACTCCCCCTTTTAACCCCAAATGTGAGTGGGCCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIleGly 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACAGCTGAAATGTACGACAACATTCTGAACAAGCCTCTCCAGCTGAAACCAAATATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyrLeuThr 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGCCTGGGAGCTGTCTTGTATGAGATGCTGTATGGCCTGCCGCCTTTTTTATAGCCGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrpTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGACTCTGCAAGGAGAACATTGAACACAACACACAACATCCACCTTCTGTGGCACGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThrIle 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACTTAAAACCAGAGAATATTTTGCTAGATTCACAGGGACACATTGTCCTTACTGATTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATATTATGTCGGAGCGGAATGTTCTGTTGAAGAATGTGAAGCACCCTTTCCTGGTGGGC 525
                                                                                                                                                                                                                                                                                                                                                                                             AspSerProAspAsp-----ThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GiyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCACTTCTCTTTCCAGACTGCTGACAAATTGTACTTTGTCCTAGACTACATTAATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GAGTATCTCGCACCTGAGGTGCTTCATAAGCAGCCTTATGACAGGACTGTGGACTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyrArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATGCTGCTGAAATAGCCAGTGCCTTGGGCTACCTGCATTCACTGAACATCGTTTATAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGAGAGTTGTTCTACCATCTCCAGAGGGAACGCTGCTTCCTGGAACCACGGGCTCGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               yGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsnTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                     1239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     585
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   765
                                                                                                                                                    8
                                                                                                                                                                                                밁
                   ð
                                                                                       Ś
                                                                                                                           맑
                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                  맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-762-258-2 (1-495) x US-08-712-709-6 (1-2311)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-712-709-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEPHONE: 415-845-4166
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOFTWARE: FastSEQ Version 1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/7.
FILING DATE: Filed Herewith
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U.S.
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: CI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 2311 base par
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CLONB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OPERATING SYSTEM:
                    187
                                                       553
                                                                                         167
                                                                                                                             493
                                                                                                                                                              147
                                                                                                                                                                                                  433
                                                                                                                                                                                                                                    128
                                                                                                                                                                                                                                                                         376
                                                                                                                                                                                                                                                                                                           108
                                                                                                                                                                                                                                                                                                                                               328
                                                                                                                                                                                                                                                                                                                                                                                                                    271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        235 --- CCACCAAGTCCTTCTCAGCAA----
                                                                                                                                                                                                                                                                                                                                                                               68
                                                                                                                                                                                                                                                                                                                                                                                                                                                        73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           53 GluprovalGlyHisTyrGluGluValGluLeuThrGluThrSerValAsnValGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             33 GluProGluLeuSerProAlaAspAlaCysProLeuAlaGluLeuArgAlaAlaGlyLeu
                                                                                                                                                                                                                                                                       TTCTATGCAGTCAAAGTTTTACAGAAAGAAAGCAATCCTGAAAAAG---AAAGAGGAGAAG 432
TyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyrArg
                                                       GEAGAGTTGTTCTACCATCTCCAGAGGGAAACGCTGCTTCCTGGAAACCACGGGCTCGTTCC
                                                                          GlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCysPhe
|||||||||||
                                                                                                                                                          LeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSerGly 166
                                                                                                                                                                                                HisThrArgAlaGluArgAsnIle---LeuGluSerValLysHisProPheIleValGlu 146
                                                                                                                                                                                                                                                                                                 IleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAspThrAla 127
                                                                                                                                                                                                                                                                                                                                                                              GlyGlyTyrGlyLysValPheGlnValArg---LysValGlnGlyThrAsnLeuGlyLys 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGCCTGAGCTTATGAATGCCAACCCTTCTCCT-----
                                                                                                                           CTTCACTTCTCTTTCCAGACTGCTGACAAATTGTACTTTGTCCTAGACTACATTAATGGT
                                                                                                                                                                                                                                                                                                                                               GGCAGTTTTGGAAAGGTTCTTCTAGCAAGACACAAGGCAGAAGAAGAGTG------
                                                                                                                                                                                                                                                                                                                                                                                                                  TCGTCC---AATCCTCATGCTAAACCATCTGACTTTCACTTCTTGAAAAGTGATCGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluArgIleGlyProHisCys------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2311 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8.88e-60
802.50
61.08%
44.33%
30.70%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US/08/712,709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PF-0118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ន
                                                                                                                                                                                                                                                                                                                                                                                                                                                  -PheGluLeuLeuArgValLeuGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2311
172
65
112
39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          --ATCAACCTTGGCCCG
                        206
                                                           612
                                                                                               186
                                                                                                                                                                                                                                                                                                                                                 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                        88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   52
                                                                                                                                                                                                                                                                                                                                                                                                                    327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234
```

문

S g á 문 S

8 밁 8

유 성 밁 밁

\$

밁 S 밁 8 문 \$ 문 ફ 밁 S B 5 B ð DЪ

á

문 S 맑

밁

Ş 밁 Ş 8 Ś

```
RESULT 9
US-09-111-444-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 6, Application US/09111444
Patent No. 6045792
GENERAL INFORMATION:
                                         SUFTWARE: FastSQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/111,444
FILING DATE:
PRICE PARTY 
                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM COMPATING
OPERATING SYSTEM: DOS
  PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Ph
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INERAL INFORMATION:
APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Hawkins, Phillip R.
TITLE OF INVENTION: NOVEL HUMAN
                                                                                                                                                                                                                                                                                                                                            STREET: 3174 Por
CITY: Palo Alto
                                                                                                                                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       793
                                                                                                                                                                                                                                                                   94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGCTTTTCCTATGCGCCTCCCACG 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GlyPheThrTyrValAlaProSer 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAGTCCCCTGACAGCGTCCTCGTCACAGCCAGCGTCAAGGAAGCTGCCGAGGCTTTCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGluGlu 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArg1leGly 326
                                                                                                                                                                                                                                                                                                                        ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspSerProAspAsp-----ThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeu 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATGATCTCATTAATAAGAAGATTACTCCCCCTTTTAACCCAAATGTGAGTGGGCCCAAC 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGluAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGTATCTCGCACCTGAGGTGCTTCATAAGCAGCCTTATGACAGGACTGTGGACTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrpTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AspLeuLysProGluAsnIleMetLeuSerSerGinGlyHisIleLysLeuThrAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACCTACGGCACTTTGACCCCGAGTTTACCGAAGAG----CCTGTCCCCAACTCCATTGGC 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AspValSerGlnPheAspThrArgPheThrArgGlnThrProVal---------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsnTrp 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAGCTGAAATGTACGACAACATTCTGAACAAGCCTCTCCAGCTGAAACCAAATATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyrLeuThr 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGACTCTGCAAGGAGAACATTGAACACAACAGCACAÁCATCCACCTTCTGTGGCACGCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThrIle 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGCCTGGGAGCTGTCTTGTATGAGATGCTGTATGGCCTGCCGCCTTTTTATAGCCGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TATGCTGCTGAAATAGCCAGTGCCTTGGGCTACCTGCATTCACTGAACATCGTTTATAGA
                                                                                                                                                                                                                                                                                                                                                                          3174 Porter Drive
                                                                                                                                                                                                                                                                                            U.S.
                                                                                                                                                         IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                    Incyte Pharmaceuticals,
  08/712,709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEIN KINASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            792
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          672
                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ఠ
                                                                                                                                                                                                           멍
                                               S
                                                                                                       문
                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ╏
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             다
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-762-258-2 (1-495) x US-09-111-444-6 (1-2311)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-111-444-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy d
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-6555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: line MOLECULE TYPE: CIMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ₹
::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLONE: C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH:
                                                     227
                                                                                                                                                            207
                                                                                                                                                                                                                                                                187
                                                                                                                                                                                                                                                                                                                                                                     167
                                                                                                                                                                                                                                                                                                                                                                                                                          493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                202 GAGCCTGAGCTTATGAATGCCAACCCTTCTCCT----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  μ
                                    GlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThrIle
GGACTCTGCAAGGAGAACATTGAACACAACAGCACAACATCCACCTTCTGTGGCACGCCG
                                                                                                                                      AspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAspPhe
                                                                                                                                                                                                              TATGCTGCTGAAATAGCCAGTGCCTTGGGCTACCTGCATTCACTGAACATCGTTTATAGA
                                                                                                                                                                                                                                                TyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyrArg
                                                                                                                                                                                                                                                                                                                GAGAGTTGTTCTACCATCTCCAGAGGGAACGCTGCTTCCTGGAACCACGGGCTCCTTCC
                                                                                                                                                                                                                                                                                                                                                               GlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                       CTTCACTTCTCTTTCCAGACTGCTGACAAATTGTACTTTTGTCCTAGACTACATTAATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATATTATGTCGGAĞCGGAATGTTCTGTTGAAGAATGTGAAGCACCCTTTCCTGGTGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisThrArgAlaGluArgAsnIle---LeuGluSerValLysHisProPheIleValGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCTATGCAGTCAAAGTTTTACAGAAGAAAGCAATCCTGAAAAAAG---AAAGAGGAGAAG 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAspThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCAGTTTTGGAAAGGTTCTTCTAGCAAGACACAAGGCAGAAGAAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            --- CCACCAAGTCCTTCTCAGCAA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GluProValGlyHisTyrGluGluValGluLeuThrGluThrSerValAsnValGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluProGluLeuSerProAlaAspAlaCysProLeuAlaGluLeuArgAlaAlaGlyLeu 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlyTyrGlyLysValPheGlnValArg---LysValGlnGlyThrAsnLeuGlyLys 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCGTCC---AATCCTCATGCTAAACCATCTGACTTTCACTTCTTGAAAGTGATCGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluArgIleGlyProHisCys------PheGluLeuLeuArgValLeuGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2311 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  415-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8.88e-60
802.50
61.08%
44.33%
30.70%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PF-0118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----ATCAACCTTGGCCCG
                                                       246
                                                                                                                                                                                                                 672
                                                                                                                                                                                                                                                                                                                     612
                                                                                                                                                                                                                                                                                                                                                                     186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       88
                                                                                                       732
                                                                                                                                                            226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   234
```

8 Ş 밁 S 몽 S 맑 Ś 밁 S 망 Q

S

```
RESULT 10
US-09-541-228-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 맒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               유
                                                                                                                                                                                                                                                                                                                                                                Sequence 6, Application US/09541228
PATENT NO. 6232077
GENERAL INFORMATION:
APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl J.
APPLICANT: Hawkins, Phillip R.
TITLE OF INVENTION: NOVEL HUMAN PROTEIN KINASES
NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
INFORMATION FOR SEQ ID
                                  PILING DATE:
ATTORNBY/AGENT INFORMATION:
NAME: Billings, Lucy J
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0
TELECCHMUNICATION INFORMATION:
                                                                                                                           PILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                       SOFTWARE: FastSEQ Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/541
                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM Compat
OPERATING SYSTEM: DO
                                                                                                                                                                                                                                                                                                                   STREET: 3174 POI
CITY: Palo Alto
                                                                                                                                                                                                                                                                                COUNTRY: U.S.
ZIP: 94304
                                                                                                                                                                                                                                                                                                           STATE: CA
                          TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCTTTTCCTATGCGCCTCCCACG 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GlyPheThrTyrValAlaproSer 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAGTCCCCTGACAGCGTCCTCGTCACAGCCAGCGTCAAGGAAGCTGCCGAGGCTTTCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrpTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AspSerProAspAsp----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GACCTACGGCACTTTGACCCCGAGTTTACCGAAGAG---CCTGTCCCCAACTCCATTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AATTCCGCAAGACACCTCCTGGAGGGCCTCCTGCAGAAGGACAAGGACAAAGCGGCTC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGluAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AspValSerGlnPheAspThrArgPheThrArgGlnThrProVal-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGATCTCATTAATAAGAAGATTACTCCCCCTTTTAACCCCAAATGTGAGTGGGCCCCAAC 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsnTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIleGly 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAGCTGAAATGTACGACAACATTCTGAACAAGCCTCTCCAGCTGAAAACCAAATATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgLysLysThrMetAspLysIteIleArgGlyLysLeuAlaLeuProProTyrLeuThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCCTGGGAGCTGTCTTGTATGAGATGCTGTATGGCCTGCCGCCTTTTTATAGCCGAAAC
                                                                                                                                                                                                                                                                                                                                       3174 Porter Drive
               415-845-4166
                            415-855-0555
                                                                                                                                                                                                                                3: Diskette
IBM Compatible
                                                                                                                                                                                                                     DOS
                                                                                                                                                                         US/09/541,228
                                                                                                                                08/712,709
                                                          PF-0118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeu
                                                          ยู
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       912
                                                                                                                       д
В
                                                                                                 Ŕ
                                                                                                                                                        Ś
                                     S
                                                                      멼
                                                                                                                                                                                         片
                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                 멇
                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                           片
                                                                                                                                                                                                                                                                                                                                                                    멅
                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-762-258-2 (1-495) x US-09-541-228-6 (1-2311)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-541-228-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: lines
MOLECULE TYPE: cI
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
               853
                                          267
                                                                        793
                                                                                                  247
                                                                                                                               733
                                                                                                                                                           227
                                                                                                                                                                                         673
                                                                                                                                                                                                                     207
                                                                                                                                                                                                                                                   613
                                                                                                                                                                                                                                                                               187
                                                                                                                                                                                                                                                                                                           553
                                                                                                                                                                                                                                                                                                                                       167
                                                                                                                                                                                                                                                                                                                                                                     493
                                                                                                                                                                                                                                                                                                                                                                                                 147
                                                                                                                                                                                                                                                                                                                                                                                                                               433
                                                                                                                                                                                                                                                                                                                                                                                                                                                           128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             53 GluproValGlyHisTyrGluGluValGluLeuThrGluThrSerValAsnValGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       33 GluProGluieuSerProAlaAspAlaCysProLeuAlaGluLeuArgAlaAlaGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                           HisThrArgAlaGluArgAsnIle---LeuGluSerValLysHisProPheIleValGlu 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IleTyrAlaMettysValLeuArgtysAlaLysIleValArgAsnAlatysAspThrAla 127
               TGCCIGGGAGCIGICITGIAIGAGANGCIGIATGGCCIGCGCCITITIAIAGCCGAAAC
                                        SerieuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGluAsn
                                                                                          GluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrpTrp
                                                                                                                                                   GlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThrIle
                                                                                                                                                                                         GACTTAAAACCAGAGAATATTTTGCTAGATTCACAGGGACACATTGTCCTTACTGACTTC
                                                                                                                                                                                                                                                                                                                                GlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCysPhe
                                                                                                                                  GGACTOTGCAAGGAGAACATTGAACACAACAGCACAACATCCACOTTOTGGGCACGCCG
                                                                                                                                                                                                                   AspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAspPhe
                                                                                                                                                                                                                                                                                                                                                                    CTTCACTTCTCTTTCCAGACTGCTGACAAATTGTACTTTTGTCCTAGACTACATTAATGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCTATGCAGTCAAAGTTTTACAGAAGAAAGCAATCCTGAAAAAG---AAAGAGGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyGlyTyrGlyLysValPheGlnValArg---LysValGlnGlyThrAsnLeuGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GluArgIleGlyProHisCys------PheGluLeuLeuArgValLeuGlyLys
                                                                        <u>GAGTATCTCGCACCTGAGGTGCTTCATAAGCAGCCTTATGACAGGACTGTGGACTGGTGG</u>
                                                                                                                                                                                                                                                    TATGCTGCTGAAATAGCCAGTGCCTTGGGCTACCTGCATTCACTGAACATCGTTTATAGA
                                                                                                                                                                                                                                                                               TyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyrArg
                                                                                                                                                                                                                                                                                                           GGAGAGTTGTTCTACCATCTCCAGAGGGAACGCTGCTTCCTGGAACCACGGGCTCGTTCC
                                                                                                                                                                                                                                                                                                                                                                                              LeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSerGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGCAGTTTTGGAAAGGTTCTTCTAGCAAGACACAAGGCAGAAGAAGTG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TCGTCC---AATCCTCATGCTAAACCATCTGACTTTCACTTCTTGAAAGTGATCGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ---CCACCAAGTCCTTCTCAGCAA---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGCCTGAGCTTATGAATGCCAACCCTTCTCCT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Consensus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8.88e-60
802.50
61.08%
44.33%
30.70%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative: Mismatches: Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ----ATCAACCTTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2311
172
65
112
39
                                           286
                                                                                                                                                                                                                                                    672
                                                                                                                                                                                                                                                                                                                                                                                                   166
                 912
                                                                         852
                                                                                                    266
                                                                                                                                792
                                                                                                                                                            246
                                                                                                                                                                                          732
                                                                                                                                                                                                                      226
                                                                                                                                                                                                                                                                                206
                                                                                                                                                                                                                                                                                                             612
                                                                                                                                                                                                                                                                                                                                         186
                                                                                                                                                                                                                                                                                                                                                                       $52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            52
```

路 ð B Ś გ S

```
RESULT 11
US-09-016-434-772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          믕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          \delta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             먕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Patent No. 650093
                                                                                           TELEFAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                   ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0002
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Janice Au-Young
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF SIGNALING
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
NUMBER OF SEQUENCES: 1490
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                              CLASSIFICATION:
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS CURRENT APPLICATION DATA:
              IMMEDIATE SOURCE:
                                             STRANDEDNESS:
                                                          LENGTH: 2311 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                  FILING DATE:
CLASSIFICATI
                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: FILING DATE: HEREWI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 3174 PO
CITY: PALO ALTO
                               TOPOLOGY:
                                                                                                                                                                                                                                                                                APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: INCYTE PHARMACEUTICALS, INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1267 GECTTTTCCTATGCGCCTCCCACG 1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1207 AAGTCCCCTGACAGCGTCCTCGTCACAGCCCAGCGTCAAGGAAGCTGCCGAGGCTTTCCTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyPheThrTyrValAlaProSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspSerProAspAsp-----ThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACCTACGGCACTTTGACCCCGAGTTTACCGAAGAG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GATGATCTCATTAATAAGAAGATTACTCCCCCTTTTAACCCAAATGTGAGTGGGCCCAAC 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsnTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ARTTCCCCAAGACACCTCCTGGAGGGCCTCCTGCAGAAGGACAAGGACAAAGCGCTC---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACAGCTGAAATGTACGACAACATTCTGAACAAGCCTCTCCAGCTGAAACCAAATATTACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyrLeuThr 306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AspValSerGlnPheAspThrArgPheThrArgGlnThrProVal------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIleGly 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CALIFORNIA
                                                                                                                                                                                                                                                  CATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3174 PORTER DRIVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/09016434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
MMLR2DT01
                            linear
                                                                                                                                                                                                                                                                                                                                 HEREWITH
                                            single
                                                                                                                                                                                                                                                                                                                                                   US/09/016,434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          406
                                                                                                                                                                                ន
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           - CCTGTCCCCAACTCCATTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1029
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 972
                                                                                                                                                                  ેં.ફ
                                            δ
                                                                                 ğ
                                                                                                          ð
                                                                                                                                             밁
                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                               망
                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                   용
                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       먉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-09-762-258-2 (1-495) x US-09-016-434-772 (1-2311)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-016-434-772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Мо.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLONE:
                 973
                                                                                                                                                                                                                                                                                                                                                   673
                                                                                                                                                                                                                                                                                                                                                                                                                   613
                                                                                                                                                                                                                793
                                                                                                                                                                                                                                                247
                                                                                                                                                                                                                                                                                  733
                                                                                                                                                                                                                                                                                                                 227
                                                                                                                                                                                                                                                                                                                                                                                 207
                                                                                                                                                                                                                                                                                                                                                                                                                                                 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       376 TTCTATGCAGTCAAAGTTTTACAGAAGAAAGCAATCCTGAAAAAG---AAAGAGGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          128 HisThrArgAlaGluArgAsnIle---LeuGluSerValLysHisProPheIleValGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       108 IleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAspThrAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        271 TCGTCC---AATCCTCATGCTAAACCATCTGACTTTCACTTCTTGAAAGTGATCGGAAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         235 --- CCACCAAGTCCTTCTCAGCAA----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            202 GAGCCTGAGCTTATGAATGCCAACCCTTCTCCT------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    89 GlyGlyTyrGlyLysValPheGlnValArg---LysValGlnGlyThrAsnLeuGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  73 GluArgIleGlyProHisCys------PheGluLeuLeuArgValLeuGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       53 GluProValGlyHisTyrGluGluValGluLeuThrGluThrSerValAsnValGlyPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       33 GluProGluLeuSerProAlaAspAlaCysProLeuAlaGluLeuArgAlaAlaGlyLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TTCACTTCTCTTTCCAGACTGCTGACAAATTGTACTTTGTCCTAGACTACATTAATGGT
                 AATTCCGCAAGACACCTCCTGGAGGGCCTCCTGCAGAAGGACAGGACAAAGCGGCTC---
                                             ProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIleGly 326
                                                                                                                                                 TECCTEGGAGCTETCTTGTATGAGATGCTGTATGGCCTCTTTTTATAGCCGAAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSerGly
                                                                               ACAGCTGAAATGTACGACAACATTCTGAACAAGCCTCTCCAGCTGAAACCAAATATTACA
                                                                                                          ArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyrLeuThr
                                                                                                                                                                               SerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGluAsn
                                                                                                                                                                                                                                              GluTyrMetAlaProGluTleLeuValArgSerGlyHisAsnArgAlaValAspTrpTrp
                                                                                                                                                                                                                                                                                GGACTCTGCAAGGAGAACATTGAACACAACAGCACAACATCCACCTTCTGTGGCACGCCG
                                                                                                                                                                                                                                                                                                  GlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThrIle
                                                                                                                                                                                                                                                                                                                                                   GACTTAAAACCAGAGAATATTTTGCTAGATTCACAGGGACACATTGTCCTTACTGACTTC
                                                                                                                                                                                                                                                                                                                                                                      AspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGTATCTCGCACCTGAGGTGCTTCATAAGCAGCCTTATGACAGGACTGTGGACTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                   TATGCTGCTGAAATAGCCAGTGCCTTGGGCTACCTGCATTCACTGAACATCGTTTATAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                   TyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyrArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGAGAGTTGTTCTACCATCTCCAGAGGGAACGCTGCTTCCTGGAACCACGGGCTCGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCAGTTTTGGAAAGGTTCTTCTAGCAAGACACAAGGCAGAAGAAGTG-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               477245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8.88e-60
802.50
61.08%
44.33%
30.70%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ----ATCAACCTTGGCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        107
                                                                                   972
                                                                                                                  306
                                                                                                                                                    912
                                                                                                                                                                                  286
                                                                                                                                                                                                                    852
                                                                                                                                                                                                                                                    266
                                                                                                                                                                                                                                                                                     792
                                                                                                                                                                                                                                                                                                                     246
                                                                                                                                                                                                                                                                                                                                                                                     226
                                                                                                                                                                                                                                                                                                                                                                                                                      672
                                                                                                                                                                                                                                                                                                                                                                                                                                                      206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            52
                                                                                                                                                                                                                                                                                                                                                     732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            234
```

```
Sequence 1, Application US/09256465
Patent No. 6043090
GENERAL INFORMATION:
APPLICANT: Brett P. Monia
APPLICANT: Lex M. COWSET:
ITILE OF INVENTION: ANTISENSE MODULATION OF AKT
FILL REFERENCE: RTS-0015
CURRENT APPLICATION NUMBER: US/09/256,465
CURRENT FILING DATE: 1999-02-23
NUMBER OF SEQ ID NOS: 47
SEQ ID NO 1
LENGTH: 1599
                                                                                                                                                                                                                                                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                 S
                                        よ
                                                                      8
                                                                                                           밁
                                                                                                                               $
                                                                                                                                                                   Вb
                                                                                                                                                                                          18
                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                          US-09-762-258-2 (1-495) x US-09-256-465-1 (1-1599)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
US-09-256-465-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US-09-256-465-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: DNA
ORGANISM: Homo :
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: CDS
LOCATION: (88)..(1533)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1030
                   140
                                                                                                                                          101
                                                                                                                                                                                                                                  484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       327
                                                                                                                                                                                                                                                                                               424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               367
                                                                                                                                                                                                     18
                                                                                                                                                                                                                                                                                                                           48
                                                                                                                                                                                                                                 LysHisProPheIleValGluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeu 159
                                                               ArgAsnAlaLysAsp---ThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerVal 139
                                                                                                             ----AAGGCCACTGGCCGCTACTACGCCATGAAGATCCTGCGAAAGGAAGTCATCATT
                                                                                                                                       GlnGlyThrAsnLeuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleVal 120
                                                                                                                                                                        GACTATCTCAAACTCCTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGAG---
                                                                                                                                                                                           GluheuleuArgValleuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysVal
                                                                                                                                                                                                                                                                ValGluLeuThrGluThrSerValAsnValGlyProGluArgIleGlyProHisCysPhe
                                                                                                                                                                                                                                                                                               CGGGCCCCAGGCGAGGACCCCCATGGACTACAAGTGTGGCTCCCCCAGTGACTCCTCCACG
                                                                                                                                                                                                                                                                                                                           ArgAlaAlaGlyLeuGluProvalGlyHis-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyPheThrTyrValAlaProSer 406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGTCCCCTGÀCAGCGTCCTCGTCACÀGCCAGCGTCAAGGAAGCTGCCGAGGCTTTCCTA 126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GATGATCTCATTAATAAGAAGATTACTCCCCCTTTTAACCCCAAATGTGAGTGGGCCCAAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsnTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCTACGGCACTTTGACCCCGAGTTTACCGAAGAG---CCTGTCCCCAACTCCATTGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGCTTTTCCTATGCGCCTCCCACG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AspValSerGlnPheAspThrArgPheThrArgGlnThrProVal-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AspSerProAspAsp----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                               -GCCAAGGATGAAGTCGCTCACACAGTCACCGAGAGCCGGGTCCTCCAGAACACC
                                                                                                                                                                                                                                                                                                                                                                                     1.41e-59
797.50
59.85%
42.42%
30.51%
                                                                                                                                                                                                                                                                                                                                                                                     Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1290
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AKT-2
                                                                                                                                                                                                                                                                                                                                                                                     1599
168
69
130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXPRESSION
                                                                                                                                                                                                                                                                                                                            ---TyrGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1206
                                                708
                                                                                                               654
                                                                                                                                                                        600
                                                                                                                                                                                                     100
                                                                                                                                                                                                                                  543
                                                                                                                                                                                                                                                                90
                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1089
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381
   RESULT 13
US-09-167-322-3
US-09-167-322-3
Sequence 3, Application US/09167322
Patent No. 635151
Patent No. 635151
APPLICANT: Allegheny University of the Health Sciences, Halpern, Michael S.
England, James M.
TITLE OF INVENTION: CANCER VACCINB
UNMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSE: Seidel, Gonda, Lavorgna & Monaco, P.C
STREET: Suite 1800, Two Penn Center Plaza
STATE: PA
                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                              1489
                                                                                                                                                                                                                                                                                                                                                                          1429
                                                                                                                                                                                                                                                                                                                                                                                                                                     1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1009 AAAACCTTCTGTGGGACCCCGGAGTACCTGGCGCCCTGAGGTGCTGGAGGACAATGACTAT 1068
                                                                                                                                                                                                                                                                                406
                                                                                                                                                                                                                                                                                                                                             396
                                                                                                                                                                                                                                                                                                                                                                                                       379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AsnArgAlaValAspTrpTrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySer 279
                                                                                                                                                                                                                                                 AGAGGACGCACGCTCGCTGCCATCACCGCTGGGTTGTTTTTACCCCT
                                                                                                                                                                                                                                                                                                            ACCCACTTCCCCCAGTTCTCCTACTCGGCCAGCATCCGCGAGTGAGCAGTCTGCCCACGC
                                                                                                                                                                                                                                                                                                                                                                        ATCACAATCACACCCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACCCCAAGCAGAGGCTTGGTGGGGGGCCCAGCGATGCCAAGGAGGTCATGGAGCACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AlaLeuProProTyrLeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArg 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGATC 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProProPheThrAlaGluAsnArgLysLysThrMetAspLysIleIleArgGlyLysLeu 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HisThrPheCysGlyThrIleGluTyrMetAlaProGluIleLeuValArgSerGlyHis 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HisIleLysLeuThrAspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuGluAspThrAlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHis 199
                                                                                                                                                                                                                                                                               ----SerValLeuAspSerIleLysGluGlyPheSerPheGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                     ĊĊŤĊAGGTĊACGTĊĊĠAĠGTĊĠAĊACAAGGTACTŤĊĠAŤGATGAAŤŤŤÄĊĊĠĊĊĊĀĠTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProCysLeuGlnSerGluGluAspValSerGlnPheAspThrArgPheThrArgGln---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTCCTGCCACCCTTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PhePheArgHisMetAspTrpAspAspLeuLeuAlaTrpArgValAspProProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AsnProSerGinArgIieGlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisPro 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACATCAAGATCACTGACTTTGGCCTCTGCAAAGAGGCATCAGTGACGGGGCCACCATG 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGATGGAGTATGCCAACGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IleLeuGluCysLeuSerGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePhe 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCGCGGGACGTGGTATACCGCGACATCAAGCTGGAAAACCTCATGCTGGACAAAGATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SerGinGlyIleIleTyrArgAspLeuLysProGluAsnIleMetLeuSerSerGinGly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCACGACCGCCTGTGCTTT
                                                                                                                                                                                                                                                                                                                                           -PheLeuGlyPheThrTyr-----
                                                                                                                                                                                                                                                                                                                                                                                                  ThrProValAspSerProAspAspThrAlaLeuSerGluSerAlaAsnGln
                                                    P.C.
                                                                                                                                                                                                                                                                                                                                              ---ValAlaPro---
                                                                                                                                                                                                                                                                                   419
                                                                                                                                                                                                                                                      1596
                                                                                                                                                                                                                                                                                                                  1548
                                                                                                                                                                                                                                                                                                                                                                                                                                      1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1308
                                                                                                                                                                                                                                                                                                                                                                            1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          768
                                                                                                                                                                                                                                                                                                                                                                                                           395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 888
```

```
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US-09-762-258-2 (1-495) x US-09-167-322-3 (1-1599)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-167-322-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (215) 568-8383
TELEPAX: (215) 568-5549
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1599 base pairs
TYPE: nucleic acid
STRANDENNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            No...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 19102
COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0,
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE DESCRIPTION: SEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: MODACO, Daniel A.
REGISTRATION NUMBER: 30,480
REFERENCE/DOCKET NUMBER: 79:
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: PCT/US97/00582 FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR
                                                                                                                              769
                                                                                                                                                                  160
                                                                                                                                                                                                           709
                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                                                                                                                                                                                                                                                                                                                101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           48
                                                                                                                                                                                                                                                                                                                                                                                              GlnGlyThrAsnLeuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluLeuLeuArgValLeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ValGluLeuThrGluThrSerValAsnValGlyProGluArgIleGlyProHisCysPhe
      SerGlnGlyIleIleTyrArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGly
                                          ACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCAC
                                                                                                                                                     IleLeuGluCysLeuSerGlyGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePhe
                                                                                                                                                                                                                                             LysHisProPheIleValGluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                GACTATCTCAAACTCCTTGGCAAGGGAAACCTTTGGCAAAGTCATCCTGGTGCGGGAG---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuGluAspThrAlaCysPheTyrLeuAlaCluIleThrLeuAlaLeuGlyHisLeuHis 199
                                                                                                                         GTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTTC
                                                                                                                                                                                                         AGGCÁCCCGTTCCTCACTGCGCTGAAGTÁTGCCTTCCAGACCCACGACCGCCTGTGCTTT
                                                                                                                                                                                                                                                                                        ----GCCAAGGATGAAGTCGCTCACACAGTCACCGAGAGCCGGGTCCTCCAGAACACC
                                                                                                                                                                                                                                                                                                                          ArgAsnAlaLysAsp---ThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ArgAlaAlaGlyLeuGluProValGlyHis-----TyrGluGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGGCCCCAGGCGAGGACCCCATGGACTACAAGTGTGGCTCCCCCAGTGACTCCTCCACG 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/167,322 FILING DATE: 07-Oct-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                     -AAGGCCACTGGCCGCTACTACGCCATGAAGATCCTGCGAAAGGAAGTCATCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1.41e-59
797.50
59.85%
42.42%
30.51%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ij
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7933-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1599
168
69
130
29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        #1.30
                                            888
                                                                                                                                                                179
                                                                                                                         828
                                                                                                                                                                                                                                               159
                                                                                                                                                                                                                                                                                      70E
                                                                                                                                                                                                                                                                                                                                                                     654
                                                                                                                                                                                                                                                                                                                                                                                                           120
                                                                                                                                                                                                      768
                                                                                                                                                                                                                                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-023-655-1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               믕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          뫉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 1004, Application US/09023655
Patent No. 6607879
GENERAL INFORMATION:
COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Wil
CURRENT APPLICATION DATA:
APPLICATION UNMER: US/09/023,655
FILING DATE: HEREWITH
                                                                                                                                                                                                                                                                                                APPLICANT: Cocks, Benjamin G.
APPLICANT: Susan G. Stuart
APPLICANT: Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FO
TITLE OF INVENTION: EXPRESSION
NUMBER OF SEQUENCES: 1508
                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PH
STREET: 3174 PORTER
                                                                                                                                                                                 CITY: PALO ALTO
STATE: CALIFORNIA
COUNTRY: USA
                                                                                                                                                                  ZIP:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1549 AGAGGACGCACGCTCGCTGCCATCACCGCTGGGTGGTTTTTTACCCCCT 1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1489 ACCCACTTCCCCCAGTTCTCCTACTCGGCCAGCATCCGCGAGTGAGCAGTCTGCCCCACGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1249 GACCCCAAGCAGAGGCTTGGTGGGGGGGCCCAGCGATGCCAAGGAGGTCATGGAGCACAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1009
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              280 ProProPheThrAlaGluAsnArgLysLysThrMetAspLysIleIleArgGlyLysLeu 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      688
                                                                                                                                                                  94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ala---PheLeuGlyPheThrTyr-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCACAATCACACCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCTCAGGTCACGTCCGAGGTCGACACAAGGTACTTCGATGATGAATTTACCGCCCAGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ProCysLeuGlnSerGluGluAspValSerGlnPheAspThrArgPheThrArgGln---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTCCTGCCACCCTTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PhePheArgHisMetAsnTrpAspAspLeuLeuAlaTrpArgValAspProProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AsnProSerGlnArgIleGlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaLeuProTyrLeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArg 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGATC 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGCCGGGCCGTGGACTGGTGGGGGGCTGGGTGTGGTCATGTACGAGATGATGTGCGGCCGC 1128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AsnArgAlaValAspTrpTrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySer 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAAACCTTCTGTGGGACCCCGGAGTACCTGGCGCCTGAGGTGCTGGAGGACAATGACTAT 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisThrPheCysGlyThrIleGluTyrMetAlaProGluIleLeuValArgSerGlyHis 259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CACATCAAGATCACTGACTTTGGCCTCTGCAAAGAGGGCCATCAGTGACGGGGCCACCATG 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HisIleLysLeuThrAspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThr 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----SerValLeuAspSerIleLysGluGlyPheSerPheGlnPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -----ThrProValAspSerProAspAspThrAlaLeuSerGluSerAlaAsnGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  E: INCYTE PHARMACEUTICALS,
3174 PORTER DRIVE
                       US/09/023,655
                                                                                                                                                                                                                                                                                                                                               FOR THE DETECTION
                                                                Windows/MS-DOS
```

-VaiAlaPro---

405 1488 395 1428

1368

1308

339 1248

1548

419

Ş 밁 Ś 용 S 뮹 Š Ś 멍

OF BLOOD CELL GENE

뮹

멼 S

S

Ś

유

S

밁

```
8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              IMMEDIATE SOURCE:
LIBRARY: GENBAJ
CLONE: g178325
US-09-023-655-1004
문
                         S
                                                            밁
                                                                                     5
                                                                                                                           문
                                                                                                                                                        á
                                                                                                                                                                                           문
                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                      몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-762-258-2 (1-495) x US-09-023-655-1004 (1-1599)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Percent Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: (650) 855-0555

INFORMATION FOR SEQ ID NO: 1004:
SEQUENCE CHARACTERISTICS:
LENGTH: 1599 base ~~'
Type-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: 9A-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Хо
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRANDEDNESS:
TOPOLOGY: lir
                                                                                                                                                                                                                                                                                                                                                                                         601
                                                                                                                                                                                                                                                                                                                                                                                                                      101
                                                                                                                                                                                                                                                                                                                                                                                                                                                       544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     424
                              220
                                                                                                                                                                                                                         160 IleLeuGluCysLeuSerGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePhe
                                                                                                                                                                                                                                                                                         140
                                                                                              200
                                                                                                                                                                                            769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nucleic acid
                                                                                                                                              LeuGluAspThrAlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHis
                                                                                                                                                                                                                                                                             LysHisProPheIleValGluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeu 159
                                                                                                                                                                                                                                                                                                                                                                          ------AAGGCCACTGGCCGCTACTACGCCATGAAGATCCTGCGAAAGGAAGTCATCATT
                                                                                                                                                                                                                                                                                                                                                                                                                   GlnGlyThrAsnieuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleVal 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACTATOTOAAACTOOTTGGCAAGGGAACCTTTGGCAAAGTCATCCTGGTGCGGGAG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlubeuLeuArgValLeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysVal 100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ValGluLeuThrGluThrSerValAsnValGlyProGluArgIleGlyProHisCysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGGCCCCAGGCGAGGACCCCATGGACTACAAGTGTGGCTCCCCCCAGTGACTCCTCCACG 48:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ArgAlaAlaGlyLeuGluProValGlyHis--
                                                                                                                                                                                                                                                                                                                                                   ArgAsnAlaLysAsp---ThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerVal 139
                  HisIleLysLeuThrAspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThr
                                                                                                                             ACAGAGGAGCGGGCCCGGTTTTATGGTGCAGAGATTGTCTCGGCTCTTGAGTACTTGCAC
                                                                                                                                                                                            GTGATGGAGTATGCCAACGGGGGTGAGCTGTTCTTCCACCTGTCCCGGGAGCGTGTCTTC
                                                                                                                                                                                                                                                          AGGCACCCGTTCCTCACTGCGCTGAAGTATGCCTTCCAGACCCACGACCGCCTGTGCTTT 768
 CACATCAAGATCACTGACTTTGGCCTCTGCAAAGAGGGCATCAGTGACGGGGCCACCATG 1008
                                                                                            SerGlnGlyIleIleTyrArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGly
                                                                 TCGCGGGACGTGGTATACCGCGACATCAAGCTGGAAAACCTCATGCTGGACAAAGATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENBANK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                          GCCAAGGATGAAGTCGCTCACACAGTCACCGGGAGAGCCGGGTCCTCCAGAACACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1.41e-59
797.50
59.85%
42.42%
30.51%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PA-0001 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ---TyrGluGlu 60
                                                                                              219
                                                                                                                                                            199
                                                                                                                                                                                                                           179
                                                                                                                                                                                                                                                                                                                          708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      543
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80
                                                                                                                             888
                                                                                                                                                                                            828
                                                                                                                                                                                                                                                                                                                                                                                         654
                                                                                                                                                                                                                                                                                                                                                                                                                                                       600
```

```
Sequence 25, Application US/07688352(
Patent No. 5527896
GENERAL INFORMATION:
APPLICANT: Wigler, Michael H.
APPLICANT: Colicelli, John J.
FITLE OF INVENTION: Cloning by Co
TITLE OF INVENTION: Processes
NUMBER OF SEQUENCES: 57
CORRESPONDENCE ADDRESS:
ENDRESSES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 15
US-07-688-352C-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                븅
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
FILING DATE: 19910419
CLASSIFICATION: 435
PRIOR APPLICATION DATE: US 07/
APPLICATION NUMBER: US 07/
FILING DATE: 20-AFR-1990
ATTORNEY/AGENT INFORMATION:
NAME: BOTUN, Michael F.
                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING PATENTIN Release #1.0, Version
SOFTWARE: PATENTION DATA:
APPLICATION NUMBER: US/07/688,352C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: Two First National Plaza,
STREET: Street
CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Marshall, O'Toole, Gerstein, Murray ADDRESSEE: Bicknell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1009 AAAACCTTCTGTGGGACCCCCGGAGTACCTGGCGCCTGAGGTGCTGGAGGACAATGACTAT 1068
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             260 AsnArgAlaValAspTrpTrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySer 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                60603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AsnProSerGlnArgIleGlyGlyProGlyAspAlaAlaAspYalGlnArgHisPro 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HisThrPheCysGlyThrIleGluTyrMetAlaProGluIleLeuValArgSerGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGGACGCACGCTCGCCATCACCGCTCGGTGGTTTTTTACCCCT 1596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATCACAATCACACCCCTGACCGCTATGACAGCCTGGGCTTACTGGAGCTGGACCAGCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCTTCCTCAGCATCAACTGGCAGGACGTGGTCCAGAAGAAGCTCCTGCCACCCTTCAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PhePheArgHisMetAsnTrpAspAspLeuLeuAlaTrpArgValAspProProPheArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACCCCAAGCAGAGGCTTGGTGGGGGGCCCCAGCGATGCCAAGGAGGTCATGGAGCACAGG 1308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AlaLeuProProTyrLeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArg 319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTGCCCTTCTACAACCAGGACCACGAGCGCCTCTTCGAGCTCATCCTCATGGAAGAGATC 1188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ProProPheThrAlaGluAsnArgLysLysThrMetAspLysIlelleArgGlyLysLeu 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         egodeseccersealoriseseccioses de la constanción 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCCACTICCCCCAGTICICCTACTCGGCCAGCATCCGCGAGTGAGCAGTCTGCCCACGC 1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ala---PheLeuGlyPheThrTyr----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCTCAGGTCACGTCCGAGGTCGACACAAGGTACTTCGATGATGAATTTACCGCCCAGTCC 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ProCysieuGlnSerGluGluAspValSerGlnPheAspThrArgPheThrArgGln---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----SerValLeuAspSerIleLysGluGlyPheSerPheGlnPro 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------ThrProValAspSerProAspAspThrAlaLeuSerGluSerAlaAsnGln 395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US/07688352C
                                                                                                                    US 07/511,715
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Complementation and Related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20 South Clark
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -ValAlaPro---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 259
```

```
Ş
                          밁
                                                S
                                                                             문
                                                                                                S
                                                                                                                              밁
                                                                                                                                                   Ş
                                                                                                                                                                              밁
                                                                                                                                                                                                    $
                                                                                                                                                                                                                                   g,
                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-762-258-2 (1-495) x US-07-688-352C-25 (1-1276)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-07-688-352C-25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 25447
REFERENCE/DOCKET NUMBER: 2780
TELECOMMUNICATION: TELEPHONE: (312) 346-5750
TELEPHONE: (312) 984-9740
TELEX: 25-3856
INPORMATION FOR SEQ ID NO: 25:
SEQUIENCE CHARACTERISTICS:
LENGTH: 1276 base pairs
TYPE: NUCLBIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: 811
TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME/KEY:
                                                                              549
                                                                                                     205
                                                                                                                               489
                                                                                                                                                        185
                                                                                                                                                                                  429
                                                                                                                                                                                                          165
                                                                                                                                                                                                                                    371
                                                                                                                                                                                                                                                           145
                                                                                                                                                                                                                                                                                     311
                                                                                                                                                                                                                                                                                                                                                     105 LeuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLys 124 ::::::||||||||| :::
                                                                                                                                                                                                                                                                                                                                                                                             197
245 ThrIleGluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAsp
                                                                                                                                                                                                                                                                                                                125
                                                                                                                                                                                                                                                                                                                                          257
                                                                                                                                                                                                                                                                                                                                                                                                                                             137 ACACATCATGTAAAGGAAGGACATGAAAAGGCAGATCCTTCCCAGTTTGAAACTTTTTAAAA 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 101
                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29 GluGlyGluGlyGluProGluLeuSerProAlaAspAlaCysProLeuAlaGluLeuArg
                        CysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIle
                                                                                                                                                                                                  SerGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAla
                                                                                                                                                                                                                                 ValGluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeu 164
                                                                                                                                                                                                                                                                                                       AspThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLysHisProPheIle
                                                                           TATAGAGACTTAAAACCAGAAAATATCTT-CTTGATGAAGAAGGTCACATCAAGTTAACA
                                                                                                TyrArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThr
                                                                                                                              AAATTCTACCTGGCTGAACTTGCACTTTAGACCATCTACCTAGCCTGGGAATAATT
                                                                                                                                                                                 AGGGGAGGAGATTTGTTTACACGCTTATCCAAAGAGGTGATGTTCACAGAAGAAGATGTC
                                                                                                                                                                                                                                                                                    GACCGAGTTCGGÁCAAAAATGGÁÁCGTGATÁTCTTGGTAGAGGTTAATCÁTCCTTTTÁTT
                                                                                                                                                                                                                                                                                                                                        GCTAGGCAGCTTTATGCCATGAAGGTATTGAAGAAGGCCACACTG-----AAAGTTCGA 310
                                                                                                                                                                                                                                                                                                                                                                                           ------ValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AlaAlaGlyLeuGluProValGlyHisTyrGluGluValGluLeuThrGluThrSer---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GRACCTATGGGAGAGGAGGAGATTAACCCA------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDS
2..504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1.23e-59
796.50
64.14%
47.64%
30.47%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -----CAAACTGAAGAAGTCAGTATCAAAGAAATTGCAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     27805/30197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1276
182
63
110
32
                                                                                                                               548
8
                                                                                                                                                                                 486
                                                                                                                                                                                                          184
                                                                                                                                                                                                                                                                                                                                                                                                                    104
264
                                                                             607
                                                                                                    224
                                                                                                                                                       204
                                                                                                                                                                                                                                                                                     370
                                                                                                                                                                                                                                                                                                                144
                                                                                                                                                                                                                                                                                                                                                                                             256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100
```

	CT 1144	1143	망
	la 404	404	Ś
TGTTG 1142		1086	B
rValA 404	roAspAspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPho	384	Ś
TTCAC 1085	GGCCTGAAGATACATTCTATTTTGATCCTGAGTTTACTGCAAAAACTCCCCAAAGA	1026	B
pSerP 384	364 erGluGluAspValSerGlnPheAspThrArgPheThrArgGlnThrProValAspSerP	364	S
GGGCA 1025	TAGACTGGAATAAACTGTATAGAGA-GAAATTCATCCGCCATTTAAACCTGCAAC	967	망
uGlnS 364	etAsnTrpAspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnS 364	344	Ş
AACGA 966		907	밁
gHisM 344	rgIleGlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisM 344	324	Ś
AAACA 906		847	문
rGlnA 324		304	5
ACAGT 846	AAAAGATCGAAAAGAAACAATGACTATGATTCTTAAAGCCAAAACTTGGAATGCCACAGT	787	8
oProT 304	aGluAsnArgLysLysThrMetAspLysIleIleArgGly-LysLeuAlaLeuPr	284	á
CAAGG 786	TGGTGGTCTTTTGGTGTTAATGTTTGAAATGCTTACTGGTACCACTCCCTTTCCAAGG	727	日
ThrAl 284		265	Ş
 	:::		B

Search completed: July 3, 2004, 12:18:00 Job time: 149 secs

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OM protein - protein search, using sw model
Published Applications AA:*

1: /cgm2_6/ptodata/2/pubpaa/US07 PUBCOMB.pep:*

2: /cgm2_6/ptodata/2/pubpaa/US06 NEW PUB.pep:*

3: /cgm2_6/ptodata/2/pubpaa/US06 NEW PUB.pep:*

4: /cgm2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

5: /cgm2_6/ptodata/2/pubpaa/US08_NEW PUB.pep:*

6: /cgm2_6/ptodata/2/pubpaa/US08_NEW PUB.pep:*

6: /cgm2_6/ptodata/2/pubpaa/US08_NEW PUB.pep:*

9: /cgm2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

9: /cgm2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*

10: /cgm2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*

11: /cgm2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*

12: /cgm2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*

13: /cgm2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*

14: /cgm2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

15: /cgm2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

16: /cgm2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

17: /cgm2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

16: /cgm2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

17: /cgm2_6/ptodata/2/pubpaa/US10E_PUB.pep:*

18: /cgm2_6/ptodata/2/pubpaa/US10E_PUB.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    June 30, 2004, 17:11:37 ; Search time 50 Seconds (without alignments) 2798.782 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1166195 seqs, 282705291 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-762-258-2
2614
1 MARGRRARGAGAAMAAVFDL......PIRPPSGTKXSKRGRGRPGR 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1166195
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

		13 951.5	12 95!	11 1174.5	Ξ.	9 1:	8 1:	7 1,	6 1.	5 1.	4 1	3 1	2 1.	1 2!	Result No. Sco
	9.5	1.5 3							1740 6				756 6	2596 9	Score Ma
90.0	ض. س	4.	36.6						66.6					ù	Query Match Length
740	740	740						637 9					333	502	gth DB
9 US-09-771-161A-266	9 US-09-771-161A-265	L5 US-10-369-493-5149	L5 US-10-108-260A-3334	12 US-10-425-114-54517	L2 US-10-220-955-13	L4 US-10-102-806-663	12 US-09-925-298-663	9 US-09-817-310-2	14 US-10-316-253-34	L4 US-10-316-253-32	15 US-10-217-555-16	15 US-10-217-574-16	12 US-10-217-155A-16	l2 US-10-425-114-54060	3 ID
Sequence 266, App	Sequence 265, App	Sequence 5149, Ap	Sequence 3334, Ap	Sequence 54517, A	74	Sequence 663, App	Sequence 663, App	Sequence 2, Appli	Sequence 34, Appl	Sequence 32, Appl	Sequence 16, Appl	Sequence 16, Appl	Sequence 16, Appl	Sequence 54060, A	Description

5	44	43	42	41	40	39	υ 8	37	36	35	34	υ U	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	F
794.5	794.5	794.5	795.5	795.5	795.5	795.5	799.5	802.5	804	806.5	806.5	810.5	810.5	910.5	810.5	810.5	810.5	810.5	844	850.5	851.5	854	903.5	916.5	916.5	916.5	937.5	949	74.7
30.4	30.4	30.4	30.4	30.4	0	0	0	30.7	0	0	0	$\vdash$	$\vdash$	31.0	31.0	۲	31.0	۲	32.3	Ņ	N	Ņ	4	'n	Ş	35.1	Ü	9	٥
340	340	34Q	481	481	481	481	1207	431	436	431	431	526	445	431	431	431	407	388	198	352	4 5 5	773	812	328	328	328	698	797	131
15	15	12	Š	5	5	12	10	œ	5	5	14	5	14	12	12	9	14	5	12	2	12	14	12	15	15	12	14	15	Ü
US-10-217-555-17	US-10-217-574-17	US-10-217-155A-17	US-10-217-555-32	US-10-217-574-32	US-10-394-322A-2	US-10-217-155A-32	US-09-949-029-144	US-09-810-808-5	US-10-369-493-22653	US-10-353-690-12	US-10-000-039-2	US-10-094-749-1861	US-10-067-977-2	US-10-403-161-4	US-10-403-161-2	US-09-981-353-7	US-10-067-977-4	US-10-131-410-104	US-10-240-315-4	US-10-425-114-43537	US-10-424-599-177033	0-112	US-10-425-114-54270	US-10-217-555-15	US-10-217-574-15	US-10-217-155A-15	US-10-102-554-2	US-10-369-493-5150	05-T0-203-#32-37-80
Sequence 17			Sequence 32,	Sequence 32,	Sequence 2,		Sequence 14	Sequence 5,		Sequence 12	Sequence 2,		'n	*	e 2,	Sequence 7,	Sequence 4,	Sequence 10								Sequence 15,		Sequence 51	
•	•			Appl	2, Appli	Appl	4, App	5, Appli	22653, A	, Appl	2, Appli	1861, Ap	Appli	Appli	Appli	Appli	4, Appli	¾, App	4, Appli	43537, A	177033,	Appli	54270, A	, Appl	, Appl	, Appl	Appli	5150, Ap	-

### ALIGNMENTS

Ś	말	Ą	마	Ą	Query Ma Best Lo Matches	US-10-42	; FEAT	; ORG	; TENG	; SEQ II	HONOR !	CURRE	; FILE	TITLE	; APPLI	; APPLICANT	; APPLICANT	; APPLICANT	, APPLI	; GENERA	; Public	US-10-42	RESULT 1
124 KDTAHTRAERNILESVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDT 183	71 TETSVNVGPERIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNA 130	64 TETSVNVGPERIGEHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNA 123	11 GRRARGAGAAMAAVFDLDLETEEGSEGEBELSPADACPLAELRAAGLEPVGHYEEVEL 70	4 GRRARGAGAAMAAVFDIDLETEEGSEGEGEBPELSPADACPLAELRAAGLEPVGHYESVEL 63	Query Match 99.3%; Score 2596; DB 12; Length 502; Best Local Similarity 99.8%; Pred. No. 1.3e-178; Matches 491; Conservative 0; Mismatches 1; Indels 0; Gaps 0;	US-10-425-114-54060	FEATURE: OTHER INFORMATION: Clone ID: LIB3081-101-B10_FLI.pep	ORGANISM: Homo sapiens	TYPE: PRT	SEQ ID NO 54060	NUMBER OF SEQ ID NOS: 73128	CURRENT APPLICATION NUMBER: US/10/425,114	2	TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement	APPLICANT: Cao, Yongwei TITHE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With		: Screen, Steven	: Koval	APPLICANT: Diu, Dinguong		Publication No. US20040034888A1	. ACTIONING RAPIG PROJECTION TRAINING AND TRAINING PROJECTION RAPIG PROJECTION TRAINING AND TRAINING PROJECTION TRAINING PROJE	

300

```
APPLICANT: Barford, David
APPLICANT: Yang, Jing
APPLICANT: Yang, Jing
APPLICANT: Cron, Peter D
TITLE OF INVENTION: Kinase Crystal Structures and Materials and Methods for
TITLE OF INVENTION: Kinase Activation
FILE REPERENCE: 44236
CURRENT FILING DATE: 2002-08-14
PRIOR APPLICATION NUMBER: US/10/217,155A
CURRENT FILING DATE: 2001-08-14
PRIOR APPLICATION NUMBER: GB 0119860.5
PRIOR FILING DATE: 2001-08-14
PRIOR APPLICATION NUMBER: GB 0209985.1
PRIOR FILING DATE: 2002-05-01
NUMBER OF SEQ ID NOS: 40
SOSTWARE: Patentin Ver. 2.1
밁
                                                                                                     Ś
                            S
                                                                      맑
                                                                                                                                                 멅
                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Dö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 2
US-10-217-155A-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               멍
                                                                                                                                                                                                                                                                                                       US-10-217-155A-16
                                                                                                                                                                                                                          Query Match
Best Local S
Matches 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 16, Application US/10217155A
Publication No. US20030065855A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                  SEQ ID NO 16
LENGTH: 333
                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Description of Unknown Organism: Sequence OTHER INFORMATION: uncertain
                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Unknown Organism FEATURE:
                                                                      134 NILESVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLABITL 193
  121
                                    194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          131
                                                                                                                                                                                                                            331;
                                                                                                                                                                     74 RIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVENAKDTAHTRAER 133
                                                                                                                                                                                                                        h 67.2%; Score 1756; DB 12;
Similarity 100.0%; Pred. No. 2.4e-118;
31; Conservative 0; Mismatches 0;
                      ALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEI 253
ALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEI 180
                                                                                                                                                   RIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KKSKRGRGRPGR 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KKSKRGRGRPGR 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRRLINSSPRAPVSPLKFSPFEGFRPSPSLPEPTELPLPPLPPPPPSTTAPLPIRPPSGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRRLNSSPRVPVSPLKFSPTEGFRPSPSLPEPTELPLPPLLPPPPPPSTTAPLPIRPPSGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEEDVSQFDTRFTRQTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQPKLRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEEDVSQFDTRFTRQTPVDSPDDTALSESANQAFLGPTYVAPSVLDSIKEGFSPQPKLRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YLTPDARDLVKKFLKRNPSQRIGGGPGDAADVQRHPFFRHMNWDDLLAWRVDPPFRPCLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    YLTPDARDLVKKFLKRNPSQRIGGGPGDAADVQRHPFFRHMMDDLLAMRVDPPFRPCLQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTIEYMAPEILVRSGHNRAVDWWSLGALMYDMLTGSPPFTABNRKKTMDKIIRGKLALPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTI SYMAPSILVRSGHNRAVDWWSLGALWYDMLTGSPPFTAENRKKTMDKI IRGKLALPP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACFYLAEITLALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACFYLARITLALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHBGAVTHTFC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KDTAHTRAERNILESVKHPFIVELAYAPQTGGKLYLILECLSGGELFTHLEREGIFLEDT
                                                                                                                                                                                                                                                                Length
                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                333;
                                                                                                                                                                                                                            0
                                                                                                                                                                                                                            Gaps
                                                                                                                                                     60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          190
                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PILE REFERENCE: 44237
CURRENT FILING DATE: 2002-12-23
CURRENT FILING DATE: 2002-12-23
PRIOR APPLICATION NUMBER: GB 0119860.5
PRIOR PILING DATE: 2001-08-14
PRIOR PILING DATE: 2001-08-14
PRIOR FILING DATE: 2002-05-01
PRIOR FILING DATE: 2002-05-01
PRIOR APPLICATION NUMBER: GB 0216215.4
PRIOR APPLICATION NUMBER: GB 0216215.4
PRIOR PILING DATE: 2002-07-12
NUMBER OF SEQ ID NOS: 46
SOPTWARE: PATENTIN VET: 2.1
SEQ ID NO 16
LENGTH: 333
                                                                                                               8
                                                                                                                                                                                        ₽
                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                  문
                                                                    S
                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                              Q
                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 3
US-10-217-574-16
; Sequence 16, Application US/10217574
; Publication No. US20040005687A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          US-10-217-574-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 331; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Kinase Crystal Structures
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Barford, David APPLICANT: Yang, Jing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Unknown Organism
PEATURE:
OTHER INFORMATION: Description of Unknown Organism:
OTHER INFORMATION: uncertain
                                                                                                                                                 314
                                        301
                                                                          374
                                                                                                                 241
                                                                                                                                                                                          181
                                                                                                                                                                                                                            254
                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                         194 ALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEI
                                                                                                                                                                                                                                                                                                                                                               134 NILESVKHPFIVELAVAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          254 LVRSGHNRAVDWWSLGALMYDWLTGSPPFTAENRKKTMDKIIRGKLALPPYLTEDARDLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               241
                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                74 RIGPHCEELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAER
                                                                                                                                                                                                                                                                                                                                                                                                                      ب
                                                            RFTRQTPVDSPDDTALSESANQAFLGFTYVA 404
                                                                                                                                                                                                                LVRSGEDIRAVD\\WSLGALMYD\\LTGSPPFTAENRKKT\\DXIIRGKLALPYYLTPDARDLV
                                                                                                                                                                                                                                                                                                                                           NILESVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLABITL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RFTROTEVDSPDDTALSESANQAFLGFTYVA 331
                                                                                                                 KKPLKKNPSQRIGGGPGDAADVQRHPFFRHMNWDDLLAWRVDPPFRPCLQSEEDVSQFDT
                                                                                                                                             KKFLKRNESORIGGGPGDAADVQRHPFFRHMMNDDLLAWRVDPFFRPCLQSEEDVSQFDT
                                                                                                                                                                                          LVRSGHVRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLV
                                                                                                                                                                                                                                                                    ALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPEI
                                                                                                                                                                                                                                                                                                                                                                                                                    RIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RFTROTPVDSPDDTALSESANQAPLGFTYVA 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RFTRQTPVDSPDDTALSESANQAFLGFTYVA 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KKFLKRNPSQRIGGGPGDAADVQRHPFFRHMWWDDLLAWRVDPPFRPCLQSEEDVSQFDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     KKFLKRNPSQRIGGGFGDAADVQRHPFFRHMNWDDLLAWRVDPPFRPCLQSEEDVSQFDT 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cron,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Hemmings, Brian A
Cron, Peter D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             67.2%; Score 1756; DB 15; ilarity 100.0%; Pred. No. 2.4e-118; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
```

373

313 180

240

193

60

0

```
Sequence 32, Application US/10316253
Publication No. US20030162706A1
GENERAL INFORMATION:
APPLICANT: The Procter & Gamble Company
APPLICANT: Peters, Kevin
APPLICANT: Thompson, Larry
APPLICANT: Wang, Feng
APPLICANT: Greis, Kenneth
TITLE OF INVENTION: Angiogenesis Modulating Profile REPERENCE: 8865M
CURRENT APPLICATION NUMBER: US/10/316,253
CURRENT FILING DATE: 2002-12-10
PRIOR APPLICATION NUMBER: US 60/355,295
PRIOR FILING DATE: 2002-02-08
                                                                                                                                                                                                                                                                        US-10-316-253-32

; OTHER INFORMATION: Description of Unknown Organism:
; OTHER INFORMATION: uncertain
US-10-217-555-16

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: Kinase Crystal Structures and Materials and Methods for TITLE OF INVENTION: Kinase Activation

FILE REFERENCE: 44236

CURRENT APPLICATION NUMBER: US/10/217,555

CURRENT FILING DATE: 2002-12-05

PRIOR APPLICATION NUMBER: GB 0119860.5

PRIOR APPLICATION NUMBER: GB 029985.1

PRIOR FILING DATE: 2001-08-14

PRIOR FILING DATE: 2002-05-01

NUMBER OF SEQ ID NOS: 40

SOFTMARS: Patentin Ver. 2.1

SEQ ID NO 16

LENGTH: 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 16, Application US/10217555 Publication No. US20040009569A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LENGTH: 333
TYPE: PRT
ORGANISM: Unknown C
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Barford, David APPLICANT: Yang, Jing
                                                                                                                                                                                                                                                                                                                                                                                            374
                                                                                                                                                                                                                                                                                                                                                                                                                                                            314 KKFLKRNPSQRIGGGPGDAADVQRHPFFRHMNWDDLLAWRVDPPFRPCLQSEEDVSQFDT 373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                       301 RETROTEVDSPODTALSESANOAFLGETYVA 331
                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          134 NILESVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    74 RIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ب
                                                                                                                                                                                                                                                                                                                                                                            RFTRQTPVDSPDDTALSBSANQAFLGFTYVA 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LVRSGHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKBSIHEGAVTHTFCGTIEYMAPRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LVRSGHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYNAPEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NILESVKHPFIVELAYAPQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAER
                                                                                                                                                                                                                                                                                                                                                                                                                                  KKFLKRNPSQRIGGGPGDAADVQRHPFFRHMNWDDLLAWRVDPPFRPCLQSBEDVSQFDT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cron,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Hemmings, Brian A
Cron, Peter D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          67.2%; So ilarity 100.0%; I Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Organism
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1756; DB 15;
; Pred. No. 2.4e-118;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                   Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                  300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                      ; ORGANISM: Rattus norvegicus US-10-316-253-34
                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 6
US-10-316-253-34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ₿
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   몽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                            Sequence 34, Application US/10316253
Publication No. US20030162706A1
GENERAL INFORMATION:
APPLICANT: The Procter & Gamble Company
APPLICANT: Peters, Kevin
APPLICANT: Thompson, Larry
                                                                                             SOFTWARE: PatentIn version 3.1
SEQ ID NO 34
                                                                                                                                  FILE REFERENCE: 8865M
CURRENT APPLICATION NUMBER: US/10/316,253
CURRENT FILING DATE: 2002-12-10
PRIOR APPLICATION NUMBER: US 60/355,295
PRIOR FILING DATE: 2002-02-08
NUMBER OF SEQ ID NOS: 308
                                                                                                                                                                                                                                              APPLICANT: Thompson, Larry
APPLICANT: Wang, Peng
APPLICANT: Greis, Kenneth
TITLE OF INVENTION: Angiogenesis Modulating Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                              LENGTH: 525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117
```

Ş

문 δ 유 Ś 밁 Ś g Ş 밁 Ş ğ

```
; TYPE: PRT; ORGANISM: Rattus
US-10-316-253-32
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 308
SOFTWARE: PatentIn version
SEQ ID NO 32
LENGTH: 502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                            479 PP-SGTKKSK 487
                                                                                                                                                                                                               369 SQFDTRFTRQTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQPKLRSFRRLN 428
                                                                                                                                                                                                                                                                                                                                                                                                        249 MAPEILVRSCHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               189 AEITLALGHLHSQGIIYRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              129 TRABRNILESVKHPPIVBLAYAFQTGGKLYLILBCLSGGELFTHLEREGIFLEDTACFYL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               57 NRGPEKIRPECFELLRVLGKGGYGKVFQVRKVTGANTGKIFAMKVLKKAMIVRNAKDTAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             69 NVGPERIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14 MAAVFDUDLETEEGSEGEGEPELSPADACPLAE-LRAAGLEP----VGHYEEVELTETSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MAGVFDIDLDQPEDAGSEDELE----EGGQLNESMDHGGVGPYELGMEHCEKPEISETSV
                                                                                                                                         SSPRVPVSPLKFSPFE----GFRPSPSLPE-PTELPPLLPPPPPPSTT-----APLPIR
                                                                                                                                                                                                                                                                                                      ARDIVKKFIKRNPSQRIGGGFGDAADVQRHPFFRHMWDDILLAWRVDPPFRPCIQSEEDV
                                                                                                                                                                                                                                                                                                                                                                            MAPSILMRSGHNRAVDWWSLGALMYDMLTGAPPFTGENRKKTIDKILKCKLNLPPYLTQE
QPNSGPYKKQ 486
                                                                                            GSPRTPVSPVKPSPGDFWGRGASASTANPQTPVEYPMETSGIEQMDVTTSGEASAPLPIR
                                                                                                                                                                                        SQFDSKFTRQTPVDSPDDSTLSESANQVFLGFTYVAPSVLESVKEKFSFEPKIRSPRRFI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TKABRNILBEVKHPFIVDLIYAFQTGGKLYLILBYLSGGELFKQLBRBGIFMEDTACFYL
                                                                                                                                                                                                                                                                                  ARDILKKILKRNAASRIGAGPGDAGEVQAHPFFRHINWEELLARKVEPPFKPLIQSEEDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AEISMALGHLHQKGIIYRDLKPENIMLNHQGHVKLTDFGLCKESIHDGTVTHTFCGTIEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            66.8%; Score 1746; DB 14; 70.2%; Pred. No. 2e-117;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     51; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     75;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 502;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20;
                                                                                                                                              478
                                                                                                 476
                                                                                                                                                                                                                                                                                                                   . 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 116
                                                                                                                                                                                           416
                                                                                                                                                                                                                                                                                                                                                                               296
                                                                                                                                                                                                                                                                                                                                                                                                                            308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5
                                                                                                                                                                                                                                                                                     356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           236
```

```
Ş
                                                  å
                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 7
US-09-817-310-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              占
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       믕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       맑
                                                                                                                                                                                  US-09-817-310-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                  Query Match
Best Local S
Matches 279
                                                                                                                                                                                                SEQ.ID NO 2
LENGTH: 637
TYPE: PRT
ORGANISM: Drosophila melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2, Application US/09817310 Patent No. US20010042254Al GENERAL INFORMATION:
                                                                                                                                                                                                                                                            APPLICANT: Stewart, Mary
APPLICANT: Kozma, Sarah
APPLICANT: Thomas, George
TITLE OF INVENTION: Drosophila Melanogaster P70 S6 Kinase
TILE OF INVENTION UNDER: US/09/817,310
CURRENT APPLICATION NUMBER: US/09/817,310
CURRENT FILING DATE: 2001-03-26
PRIOR APPLICATION NUMBER: 09/230,247
PRIOR FILING DATE: 199-04-16
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 66.6%; Best Local Similarity 68.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            297
                                                                                                              tch 54.6%; Score 1428; DB 9; al Similarity 67.2%; Pred. No. 2.1e-94; 279; Conservative 47; Mismatches 81;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          106
                                                     17
                                                                                   19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       349;
78 HCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAERNILE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         57
                                                  DLELQDDKARDSDDBRIELDDVDLEP--ELCINLHQDTEGQETIQLCEENVNPGKIKLGP
                                                                                   DIDLETEEGSEGEGEP-ELSPADACPLAELRAAGLEPVGHYBEVELTETSVNVVGPERIGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WDDLLAWRVDPPFRPCLQSEEDVSQFDTRFTRQTFVDSPDDTALSESANQAFLGFTYVAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GKIFAMKVLKKAMIVENAKOTAHTKAERNILEEVKHPFIVDLIYAFQTGGKLYLILEYLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ETSGIEQMDVTTSGEASAPLPIRQPNSGPYKKQ 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PPLLPPPPPSTT----APLPIRPP-SGTKKSK 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SVLESVKEKFSFEPKIRSPRRFIGSPRTPVSPVKFSPGDFWGRGASASTANPQTPVEYPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SVLDSIKEGFSFOPKLRSPRRLNSSPRVPVSPLKFSPFB----GFRPSPSLPB-PTELPL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WEELLARKVERPFKPLLQSBEDVSQFDSKFTRQTPVDSPDDSTLSBSANQVFLGFTYVAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NRKKTIDKILKCKLNLPPYLTQEARDLLKKLLKRNAASRLGAGPGDAGEVQAHPFFRHIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NRKKTMDKIIRGKLALPPYLTPDARDLVKKFLKRNPSQRIGGGPGDAADVQRHPFFRFMN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FGLCKES HDGTVTHTFCGTIEYMAPEILMRSGHNRAVDWWSLGALMYDMLTGAPFFTGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FGLCKBSIHEGAVTHTFCGTIEYMAPEILVRSGHNRAVDWWSLGALMYDMLTGSPPFTAB 285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGELFMQLEREGIFMEDTACFYLAEISMALGHLHQKGIIYRDLKPENIMLMHQGHVKLTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGELFTHLEREGIFLEDTACFYLAEITLALGHLHSQGIIYRDLKFENIMLSSQGHIKLTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GKIYAMXVLRKAKIVRNAKDTAHTRABRNILESVKHPFIVELAYAFQTGGKLYLILECLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGVGPYBLGMEHCEKFEISETSVNRGPEKIRPECFELLRVLGKGGYGKVFQVRKVTGANT 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGLEP----VGHYEEVELTETSVNVGPERIGPHCFELLRVLGKGGYGKVFQVRKVQGTNL 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MRRRRRDGFYPAPDFRHREAEDMAGVFDIDLDQPEDAGSEDELE----EGGQLNESMDH 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MARGRRARGAGAA------MAAVFDLDLETEEGSEGEGEPELSPADACPLAE-LRA 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; Score 1740; DB 14;
; Pred. No. 5.8e-117;
51; Mismatches 83;
                                                                                                                                                 Length 637;
                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 525;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30;
                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                   74
                                                                                   77
                    137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      00
                                                                                                                                               р
В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 663, Application US/09925298
Publication No. US20020039764A1
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITIE OF INVENTION: Nucleic Acids, Proteins and FILE REFERENCE: PA103
CURRENT APPLICATION NUMBER: US/09/925,298
CURRENT FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/US00/05881
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR PILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 846
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 663
                                           S
                                                                                   밁
                                                                                                              8
                                                                                                                                                                           Ş
                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                              US-09-925-298-663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 8
US-09-925-298-663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 붕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     뭆
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 片
                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 242; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 272
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: SITE
LOCATION: (29)
                                                   493
                      270
                                                                                   210
                                                                                                                                                 150
                                                                                                                                                                                                                                    313 VKKFLKRNPSORIGGGPGDAADVCRHPFFRHMWWDDLLAWRVDPPFRPCLQSEEDVSQFD
                                                                                                                  433
                                                                                                                                                                              373
                                                                                                                                                                                                                                                                                                               253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    138
                                                                                                                                                                                                                 90
                                                                                                                                                                                                                                                                              30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   75
                                                     PGR 495
                                                                                 VPVSPLKF8PFEGFRPSPSLPEPTELPLPPLLPPPPPSTTAPLPIRPPSGTKKSKRGRGR 492
                                                                                                                                                                                                                                                                            TRETROTEVOSPODTALSESANQAFLGETYVAPSVLDSIKEGESFOPKLRSPRRLNSSPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PG
                                                                                                                                                 TRETROTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQPKLRSPRRLNSSPR
                                                                                                                                                                                                                 VKKFLKRNPSQRIGGGPGDAADVQRHPFFRHMMWDDLLAWRVDPPFRPCLQSEEDVSQFD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          QIPVDSPDDTTLSESANLIFQGFTYVAPSILEDMHR--ANRMPARSPRR---TPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  QTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQFKLRSPRRLNSSPR 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KRNPSQRIGGGPGDAADVQRHPFFRHMWWDDLLAWRVDPPFRPCLQSEEDVSQFDTRFTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GHNRAVDWWSLGALMYDMLIGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKFL 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LHKLGIIYRDLKPENILLDAQGHVKLTDFGLCKEHIQEGIVTHTFCGTIEYMAPEILTRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LHSQGIIYRDLKPENIMLSSQGHIKL/TDFGLCKESIHEGAVTHTFCGTIEYMAPEILVRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KROEPORLGSGPEDAAAVOIHPFFKHVNWDDVLARRLEPPIKPLLRSEDDVSOFDTRFTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GHGKAVDWWSLGALMFDMLTGVPPFTABNRKKTISTILKAKLNLPAYLTPEARDLVRRLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KDFELKKVLGKGGYGKVFQVRKTAGRDANKYFAMKVLKKASIVTNQKDTAHTRAERNILE
                                                                                                                                                                                                                                                                                                                                               Conservative
                    272
                                                                                                                                                                                                                                                                                                                                                                                                                             Xaa equals any of the naturally occurring L-amino
                                                                                                                                                                                                                                                                                                                                                          49.88;
                                                                                                                                                                                                                                                                                                                                            Score 1303; DB 12;
Pred. No. 7.7e-86;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            and Antibodies
                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                               0
                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          424
                                                                                                                                                                                                                                                                                                                                                                                                                               acids
                                                                                                                                                                                                                                                372
                                                                                                                                                                                                                                                                                                                  312
                                                                                                                                                    209
                                                                                                                                                                                  432
                                                                                                                                                                                                                   149
                                                                                                                                                                                                                                                                                 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   134
```

```
Sequence 13, Application US/10220955

Publication No. US20030211989A1

GENERAL INFORMATION:
APPLICANT: PLOMMAN, GREGORY D.
APPLICANT: WHYTE, DAVID
APPLICANT: SUDARSANAM, SUCHA
APPLICANT: SUDARSANAM, SUCHA
APPLICANT: MARTINEZ, RICARDO
TITLE OF INVENTION: MOVEL HUMAN PROTEIN KINASES AND
TITLE OF INVENTION: ENZYMES
FILE REFERENCE: 038602-1401
CURRENT APPLICATION NUMBER: US/10/220,955
CURRENT FILING DATE: 2001-03-02
NUMBER OF SEQ ID NOS: 40
SOFTMARE: Patentin Ver. 2.1
SEQ ID NO 13
LENGTH: 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: ROSER et al.
APPLICANT: ROSER et al.
TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
FILE REFERENCE: PA103P1C1
CURRENT APPLICATION NUMBER: US/10/102,806
CURRENT FILING DATE: 2002-03-22
PRIOR APPLICATION NUMBER: 09/925,298
PRIOR APPLICATION NUMBER: 09/925,298
PRIOR APPLICATION NUMBER: PCT/US00/05881
PRIOR APPLICATION NUMBER: PCT/US00/05881
PRIOR FILING DATE: 2000-03-08
PRIOR FILING DATE: 2000-03-08
PRIOR FILING DATE: 1999-03-12
VUMBER OF SEQ ID NOS: 846
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 663
LENGTH: 272
TYDE: PRT
                                                                                                                                                                                                                                                                                                                                                              RESULT 10
US-10-220-955-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                벍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; NAME/KBY: SITE
; LOCATION: (29)
; OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-10-102-806-663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 9
US-10-102-806-663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 242; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 663, Applic Publication No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               433 VPVSPLKFSPFEGFRPSPSLPEPTELPLPPPLLPPPPSTTAPLPIRPPSGTKKSKRGRGR 492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    313 VKKFLKRNPSQRIGGGFGDAADVQRHPFFRHMWMDDLLAMRVDPPFRPCLQSEEDVSQPD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        253 ILVRSGHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKI IRGKLALPPYLTPDARDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PGR 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APVSPLKFSPFEGFRPSPSLPEPTELFLPPPLLPPPPPSTTAPLPIRPPSGTKKSKRGRGR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TRFTRQTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQPKLRSPRRLNSSPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRFTRQTPVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQPKLRSPRRLNSSPR 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VKKFLKRNPSQRIGGGPGDAADVQRHPFFRHMMDDLLAWRVDPPFRPCLQSEEDVSQFD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ILVRSGHNRAVDWWSLGALWYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Application US/10102806
o. US20030054421A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        49.8%;
99.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; Score 1303; D; Pred. No. 7.7e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 14;
7.7e-86;
                                                                                                                                                                        AND
                                                                                                                                                                        PROTBIN KINASE-LIKE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          372
```

```
GENERAL INFORMATION:

APPLICANT: Liu, Jingdong
APPLICANT: Edou, Yihua
APPLICANT: Edou, Yihua
APPLICANT: Kovalic, David K.
APPLICANT: Kovalic, David K.
APPLICANT: Tabaska, Jack E
APPLICANT: Tabaska, Jack E
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILLE REFERENCE: 38-21(53313) B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 54517
LENGTH: 342
TYPE: PRT
ORGANISM: Homo sapiens
FEATURE:
FEATURE:
OTHER INFORMATION: Clone ID: LIB4656-028-E10_Fil.pep
US-10-425-114-54517
                  Ś
                                                             片
                                                                                                 Ś
                                                                                                                                               B
                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                       á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 11
US-10-425-114-54517
| Sequence 54517, Application US/10425114
| Publication No. US20040034888A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-220-955-13
                                                                                                                                                                                                                                                                                                                Query Match 44.9%; Score 1174.5; DB 12; Length 342; Best Local Similarity 70.8%; Pred. No. 1.8e-76; Matches 225; Conservative 33; Mismatches 41; Indels 19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 46.3%; Score 1211.5; DB 12; Length Best Local Similarity 79.4%; Pred. No. 3.1e-79; Matches 224; Conservative 30; Mismatches 27; Indels
                                                               133
                                                                                                                                                                                                                              245 TIEYMAPEILVRSGHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPY 304
                                                                                                 305 LTPDARDLYKKELKRNPSQRIGGGPGDAADVQRHPFFRHMNWDDLLAWRVDPPERFCLQS 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            357 PFRPCLQSEEDVSQFDTRFTRQTFVDSFDDTALSESANQAFL 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181 CKLNLPPYLTQBARDLLKKLLKRNAAS-LGAGPGDAGBVQAHPFFRHINWEELLAQKVBP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 TVIHTFCGTIBYMAPBILMRSGHNRAVDWWSLGALMYDMLTGAPPFTGBNRKKTIDNILK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240 PFKPLLQSEEDVSQFDSKFTRQTPVDSPDDATLSETANQVFL 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            297 GKLALPPYLTPDARDLVKKFLKRNPSQRIGGGPGDAADVQRHPFFRHMWDDDLLAWRVDD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              237 AVTHTECGTIEYMAPBILVRSGENRAVDWWSLGALMYDMLTGSPPPTAENRKKTMDKIIR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      117 AKIVRNAKOTAHTRABRNILESVKHPFIVELAYAPQTGGKLYLILECLSGGELFTHLERE 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 AMIVRNAKOTAHTKAEWNILEEVRHPFIVOLTYAPQTGGKLYLILEYLGGGELFNQLERB
EEDVSQFDTRFTRQTFVDSPDDTALSESANQAFLGFTYVAPSVLDSIKEGFSFQFKLRSP 424
                                                        TIEYMAPEILMRSGHNRAVDWWSLGALMYDMLTGAPPFTGENRKKTIDKILKCKLNLPPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ۲,
                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                 132
                                                               192
                                                                                                                                                                                                                                   72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         180
```

BEDVSQFDSKFTRQTPVDSPDDSTLSESANQVFLGFTYVAPSVLESVKEKFSFEPKIRSP

```
Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                       RESULT 13
US-10-369-493-5149
                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                B
                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 12
US-10-108-260A-3334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; ORGANISM: Homo sapiens
US-10-108-260A-3334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3334, Application US/10108260A
Publication No. US20040005560A1
GENERAL INFORMATION:
APPLICANT: HELIX RESEARCH INSTITUTE
TITLE OF INVENTION: No. US20040005560A1e1 full length cDNA
FILE REFERENCE: H1-A0106
CURRENT APPLICATION NUMBER: US/10/108,260A
CURRENT PILING DATE: 2002-03-27
NUMBER OF SEQ ID NOS: 5458
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 3334
                                                    Sequence 5149, Application US/10369493 Publication No. US20030233675A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
APPLICANT: Cao, Yongwei
APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 544
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                  356
                                                                                                                                                                                                                                                                                    371
                                                                                                                                                                                                                                                                                                                                                                                                                                                               176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     131
                                                                                                                                                                                                               431
                                                                                                                                                                                402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ů
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cch 36.6%; al Similarity 45.8%; 196; Conservative 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N
                                                                                                                                                                                                                                                                                                                                                      DLVKKFLKRNPSQRIGGGPGDAADVQRHPFFRHMNWDDLLAWRVDPPFRPCLQSEEDVSQ 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                               LALALDHLHSLGIIYRDLKPENILLDEEGHIKITDFGLSKEAIDHDKRAYSFCGTIEYMA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ITLALGHLHSQGIIYRDLKPBNIMLSSQGHIKLTDFGLCKESIHBGAVTHTFCGTIBYMA 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MERDILAEVNHPPIVKLHYAFQTEGKLYLILDFLRGGDLFTRLSKEVMFTBEDVKFYLAE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AERNILESVKHPFIVELAXAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAE 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GFEKADPSQFELLKVLGQGSYGKVFLVRKVKGSDAGQLYAMKVLKKATL--KVRDRVRSK 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              --ERIGPHCFELLRVLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTR
                                                                                                                                                                                                               PRVPVSPL 438
                                                                                                                                                                                                                                                                                  FDTRFTROTPVDSPDDTALSESANOAFLGFTYVAPSVLDSIKEGFSFQPKLRSPRRLNSS 430
                                                                                                                                                                                                                                                                                                                      SILRALFKRNPCNRLGAGIDGVEEIKRHPFFVTIDWNTLYRKEIKPPFKPAVGRPEDTFH
                                                                                                                                                                                                                                                                                                                                                                                                                PEILVRSGHNRAVDWWSIGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PIAQLLELWKKIEVEPM----EIETTEEDLNLDVGPATEDTAEEEEGVVKEIDISHHVKB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTAPLPIRPP-SGTKKSK 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RRFIGSPRIPVSPVKFSPGDFWGRGASAS--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RRLNSSPRVPVSPLKFSP---FEGFRPSPSLPEPTELPLPPLLPPPPPPS----
                                                                                                                                                                                                                                                                                                                                                                                          PEVVNRRGHTQSADWWSFGVLWFEMLTGSLPFQGKDRKETWALILKAKLGMPQFLSGEAQ 295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PLABL----RAAGLEPVGHYEEVELTSTSVN--VGP-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ASAPLPIRQPNSGPYKKQ 326
                                                                                                                                                                               -KVPVHPI
                                                                                                                                                                                                                                                  FDPEFTARTPTDSP-GVPPSANAHHLFRGFSFVASSLIQ--
                                                                                                                                                                               408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; Score 955.5; DB 15;
; Pred. No. 1.8e-60;
74; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TAMPOTPVEYPMETSGIEQMDVTMSGE 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 544;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53;
                                                                                                                                                                                                                                                                                                                                                                                                                              310
                                                                                                                                                                                                                                                                                                                                                                                                                                                               235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             57
                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  9
                                                                                                                                                                                                                                                                                                                                                                                          US-09-771-161A-265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                  ; ORGANISM: Homo sapiens
US-09-771-161A-265
                                                                                                                        PRIOR APPLICATION NUMBER: 09/724,676
PRIOR FILING DATE: 2000-11-28
PRIOR APPLICATION NUMBER: 135776
PRIOR FILING DATE: 2000-06-15
PRIOR FILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 135619
PRIOR FILING DATE: 2000-04-12
PRIOR FILING DATE: 2000-04-12
PRIOR FILING DATE: 273
                                                                                                                                                                                                                                                                                                                                   Sequence 265, Application US/09771161A Patent No. US20020110811A1
GENERAL INFORMATION:
                                                                     SOFTWARE: PatentIn version 3.0
SEQ ID NO 265
LENGTH: 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                               APPLICANT: LEVINE, et al.
TITLE OF INVENTION: VARIANTS OF PROTEIN KINASES
FILE REFERENCE: 802620-2005.1
CURRENT APPLICATION NUMBER: US/09/771,161A
CURRENT FILING DATE: 2001-01-26
                                                        TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   378
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           258
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              190;
```

```
; ORGANISM: Caenorhabditis elegans US-10-369-493-5149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION NUMBER: US 60/360,039
PRIOR FILING DATE: 2002-02-21
NUMBER OF SEQ ID NOS: 47374
SEQ ID NO 5149
LENGIH: 740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Goldman, Barry S.
APPLICANT: Chen, Xianfeng
TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF
TILE REFERENCE: 38-10(52052)B
FILE REFERENCE: 38-10(52052)B
CURRENT APPLICATION NUMBER: US/10/369,493
CURRENT FILING DATE: 2003-02-28
CURRENT FILING DATE: 2003-02-02
                                                                                                                                                                                                                                                                                                                                                           198 LHSQGIIYRDLKPENIMLSSQGHIKLTDPGLCKESIHEGAVTHTFCGTIEYMAPEILVRS
                                                                                                                                                                                                                                                                                                                                                                                                                           138 SVKHPFIVELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             78 HCPELLRVLGKGGYGKVPQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAERNILE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                45 ROFELLKVLGOGSFGKVFLVRKVRGRDSGHVYAMKVLKKATL - - KVRDRORTKLERNILA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             23 ETEEGSEGEGEPELSPADACPLAELRAAGLEPVGHYEEVELTETSVNVGP-----BRIGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      6 EVEEFAENEIEQGEEKTDSS--
                                                 QTPVDSPDDTALSESAN--QAFLGFTYVAPSVLDSIK 412
RTPKDSP---ALPASANGHBIFRGFSFVSNAVMBERK 376
                                                                                                                                   KRNPSORIGGGFGDAADVQRHPFFRHMWDDLLAWRVDPPFRPCLQSEEDVSOFDTRFTR 377
                                                                                                                                                                                                                  GHSMAADFWSLGVLMFEMLTGHLPFQGRDRNDTWTQILKAKLSMPHFLTQEAQSLLRALF
                                                                                                                                                                                                                                                                      GHNRAVDWWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKFL
                                                                                                                                                                                                                                                                                                                                 LHSLGIVYRDLKPENILLDADGHIKVTDFGLSKEAIDSEKKTYSFCGTVEYMAPEVINRR
                                                                                                         KRNSQNRLGAGPDGVEBIKRHAFFAKIDFVKLLNKBIDPPFKPALSTVDSTSYFDPBFTK 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  36.4%; Score 951.5; DB 15;
47.9%; Pred. No. 5.1e-60;
ative 69; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -SETEIDIGDVRKCGEKADP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 740;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       137
                                                                                                                                                                                                                                                                                                                                                                                                                                          162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      102
                                                                                                                                                                                                                                                                                                                              222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44
                                                                                                                                                                                                                                                                         317
                                                                                                                                                                                                                                                                                                                                                                                     257
```

```
CURRENT APPLICATION NUMBER: US/09/771,161A
CURRENT FILING DATE: 2001-01-26
PRIOR APPLICATION NUMBER: 09/724,676
PRIOR APPLICATION NUMBER: 09/724,676
PRIOR APPLICATION NUMBER: 136776
PRIOR APPLICATION NUMBER: 136776
PRIOR PILING DATE: 2000-06-15
PRIOR APPLICATION NUMBER: 135619
PRIOR PILING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PATENTING PATENTING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PATENTING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PATENTING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PATENTING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PATENTING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PATENTING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PATENTING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PATENTING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: PATENTING DATE: 2000-04-12
NUMBER OF SEQ ID NOS: 273
SOFTWARE: 2000-04-12
NUMBER: 2000-04-12
NUMBER: 2000-04-12
NUMBER: 2000-06-15
NUMBER: 2000
   몽
                                                         S
                                                                                                                          맑
                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-71-161A-265

; Sequence 266, Application US/09771161A
; Patent No. US20020110811A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         묽
                                                                                                                                                                                                                                                                                                                                                                                   Matches 185;
                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 185;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: LEVINB, et al.
TITLE OF INVENTION: VARIANTS OF PROTEIN KINASES
FILE REFERENCE: 803620-2005.1
                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
131 VKLHYAFQTEGKLYLILDFLRGGDLFTRLSKEVMFTEEDVKFYLAELALALDHLHSLGII 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              145
                                                                                                                                                                                           ω
Ω
                                                                                                                                                                                                                                                        31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29
                                                                                                                                                                             VLGKGGYGKVFQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAERNILESVKHPFI
                                  VELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGHLHSQGII 204
                                                                                                                       VIGQGSFGKVFLVKKISGSDARQLYAMKVLKKATL--KVRDRVRTKMERDILVEVNEDFI
                                                                                                                                                                                                                                                                                                                  EGEGEPELSPADACPLAELRAAGLEPVGHYEEVELTETS----VNVGPERIGPHCFELLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            LGAGPDGVEEIKRHSFFSTIDWNKLYRREIHPFFKPATGRPEDTFYFDPEFTAKTPKDSP 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DDTALSESANQAFLGFTYVA 404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WWSLGALMYDMLTGSPPFTAENRKKTMDKIIRGKLALPPYLTPDARDLVKKFLKRNPSQR 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        YRDLKDENILLDEEGHIKLTDEGLSKESIDHEKKAYSFCGTVEYMADEVVNRRGHTQSAD 250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YRDLKPENIMLSSQGHIKLTDFGLCKESIHEGAVTHTFCGTIEYMAPBILVRSGHNRAVD 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VKLHYAFQTBGKLYLILDFLRGGDLFTRLSKEVMFTBEDVKFYLAELALDHLHSLGII 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VLGKGGYGKVEQVRKVQGTNLGKIYAMKVLRKAKIVRNAKDTAHTRAERNILESVKHPFI 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EGEGEPELSPADACPLAELRAAGLEPVGHYEEVELTETS----VNVGPERIGPHCFELLR 84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -GIPPSANAHQLFRGFSFVA 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IGGGPGDAADVQRHPFFRHWWWDDLLAWRVDPPFRPCLQSEEDVSQFDTRFTRQTPVDSP 384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VELAYAFQTGGKLYLILECLSGGELFTHLEREGIFLEDTACFYLAEITLALGHLHSQGII 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VIGOGSFGKVELVKKISGSDARQLYAMKVLKKATL--KVRDRVRTKMERDILVEVNHPFI 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WWSFGVLMFEMLTGTLPFQGKDRKETMTWILKAKLGMPQFLSPEAQSLLRMLFKRNPANR 310
                                                                                                                                                                                                                                                                                                                                                                        36.3%; Score 949.5; DB 9; ilarity 48.7%; Pred. No. 7.1e-60; Conservative 65; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36.3%; Score 949.5; DB 9; ilarity 48.7%; Pred. No. 7.1e-60; Conservative 65; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  -----QTESVSIKEIAITHHVKEGHEKADPSQFELLK
                                                                                                                                                                                                                                                                                                                                                                               Indels 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 740;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels 25;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 740;
                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                    144
                                                                                                                          130
                                                                                                                                                                                                                                                     72
                                                                                                                                                                                                                                                                                                                  84
```

Search completed: June 30, 2004, 17:20:18 Job time: 51 secs

```
us-09-762-258-2.rnpb
```

```
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -MODEL-Frame+ D2N.model -DEV=xlh
-MODEL-Frame+ D2N.model -DEV=xlh
-Ce-/cgn2 1/USPTO spool/US09762258/runat 30062004 165610 13661/app_query.fasta_1.647
-Ce-/cgn2 1/USPTO spool/US09762258/runat 30062004 165610 13661/app_query.fasta_1.647
-CDB=Published_Applications_NA -OFMT=fastap -SUPFIX=rnpb -MINMATCH=0.1
-LOOPCL=0 -LOOPEXT=0 -UNITS=bite -START=1 -END=-1 -MATRIX-blosum62
-TRAMS=human40.cdi -LIST=45 -DOCALIGN=200 -THR SCORE=pct -THR MAX=100
-THR MIN=0 -ALIGN=15 -MODE=LOCAL -OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0
-MAXIEN=2000000000 -USER=US09762258 @CGN 1.1 487 @runat 30062004 156510_13661
-NCPU=6 -ICPU=3 -NO MMAP -LARGEQUERY -NEG SCORES=0 -WAIT -DSPBLOCK=100
-LONGLOG -DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=10 -XGAPEXT=0.5
-PGAPOP=6 -PGAPEXT=7 -YGAPOP=10 -YGAPEXT=0.5 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OM protein -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Command line parameters: -MODEL=frame+_p2n.model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Title:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xgapop 10.0 , y
Ygapop 10.0 , y
Fgapop 6.0 , I
Delop 6.0 , I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        July 3, 2004, 12:01:17 ; Search time 661 Seconds (without alignments) 3612.682 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Published_Applications_NA:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BLOSUM62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-09-762-258-2
2614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3163042 seqs, 2412103800 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MARGRRARGAGAAMAAVFDL.....PIRPPSGTKKSKRGRGRPGR 495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
/ Cgn2_6/ptodata/2/pubpna/US08_MEW PUB_seq:*
/ Cgn2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US09_NEW_PUB_seq:*
/ Cgn2_6/ptodata/2/pubpna/US09_NEW_PUB_seq:*
/ Cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10B_PUBCOMB.seq:*
/ Cgn2_6/ptodata/2/pubpna/US10_NEW_PUB_seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6/ptodata/2/pubpna/US07_PUBCOMB.seq:*
6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
6/ptodata/2/pubpna/US07_NEW_PUB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                    6/ptodata/2/pubpna/PCTUS_PUBCOMB.seq: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Xgapext
Ygapext
Fgapext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Delext
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7.0
7.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          6326084
```

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No. Score Query Match Length DB

IJ

Description

### ALIGNMENTS

APPLICANT: Zhou, Yihua

APPLICANT: Kovalic, David K.

APPLICANT: Screen, Steven B

APPLICANT: Tabaska, Jack B

APPLICANT: Tabaska, Jack B

APPLICANT: Cao, Yongwei

TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With

TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement

PILE REFERENCE: 38-21(5331)B

CURRENT APPLICATION NUMBER: US/10/425,114

CURRENT FILING DATE: 2003-04-28

SEQ ID NO 19480

LENGTH: 1742

TYPE: Now OTHER INFORMATION: Clone ID: LIB3081-101-B10\_FLI ORGANISM: Homo sapiens

166

1111

```
밁
                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                             뫄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-09-762-258-2 (1-495) x US-10-425-114-18480 (1-1742)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-425-114-18480
      304
                                                                                                                                                                                                    692
                                                                                                                                                                                                                                                                                                                                                                        512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      392
                                                                                                                 264
                                                                                                                                            752
                                                                                                                                                                       244
                                                                                                                                                                                                                               224
                                                                                                                                                                                                                                                                                     204
                                                                                                                                                                                                                                                                                                                                                                                                                              452
                                                                                                                                                                                                                                                                                                                                                                                                                                                          144
                                                                                                                                                                                                                                                                                                                                           184
                                                                                                                                                                                                                                                                                                                                                                                                   164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   39
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 32
                                                                                                                                            GlyThrIleGluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaVal
                                              AlaGluAsnArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProPro
                                                                                                                                                                                                                                                        AlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIle
    TyrLeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGln
                                                                                                                                                                                                                   ThrAspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCys
                                                                                                                                                                                                                                                                                                                                                                                    LeuSerGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyArgArgAlaArgGlyAlaGlyAlaAlaMetAlaAlaYalPheAspLeuAspLeuGlu
                                                                                       GACTGGTGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTCACC
                                                                                                        AspTrpTrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThr
                                                                                                                                                                                                                                                                                                                GCCTGCTTCTACCTGGCTGAGATCACGCTGGGCCGTGGGCCATCTCCCACGCCAGGCATC
                                                                                                                                                                                                                                                                                                                                                                       CTCAGTGGTGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACG
                                                                                                                                                                                                                                                                                                                                                                                                                                ATTGTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                               IleValGluLeuAlaTyzAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAGGACACAGCACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysAspThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLysHisProPhe 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AsnLeuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAla 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CGTGTGCTGGGCAAGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ArgValLeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTGAGACCAGCGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ThrGluThrSerValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuAlaGluLeuArgAlaAlaGlyLeuGluProValGlyHiSTyrGluGluValGluLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACGGAGGAAGGCAGCGAGGGCGAGGCCAGAGCTCAGCCCCGCGGACGCATGTCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ThrGluGluGlySerGluGlyGluGlyGluProGluLeuSerProAlaAspAlaCysPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCCGACGGGCCCGCGGGCCCCCCCCATGGCGCCGTGTTTGATTTGGATTTGGAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2.97e-254
2596.00
99.80%
99.80%
99.31%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
Conservative:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1742
491
0
                                                                                                                                                                                                                                                                                                                                                                                                  183
                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103
      323
                                                         303
                                                                                     871
                                                                                                               283
                                                                                                                                                                     263
                                                                                                                                                                                                                             243
                               931
                                                                                                                                            811
                                                                                                                                                                                                                                                        691
                                                                                                                                                                                                                                                                                    223
                                                                                                                                                                                                                                                                                                                                          203
                                                                                                                                                                                                                                                                                                                                                                                                                             512
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                  751
                                                                                                                                                                                                                                                                                                                631
                                                                                                                                                                                                                                                                                                                                                                     571
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     451
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23
                                                                               APPLICANT: La1, Preeti
APPLICANT: Au-Young, Janice
APPLICANT: Reddy, Roopa
APPLICANT: Marry, Lynn E
APPLICANT: Marry, Lynn E
APPLICANT: Mathur, Preete
FITLE OF INVENTION: SIGNAL PEFTIDE-CONTAINING PROTBINS
FILE REFERENCE: PC-0051 CLP
CURRENT APPLICATION NUMBER: US/09/968,433
CURRENT FILING DATE: 2001-10-01
NUMBER OF SEQ ID NOS: 79
SOFTWARE: PERL Program
SEQ ID NO 10
LENGTH: 1637
TYPE: DNA
ORGANISM: Homo sapiens
FRATURE: NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No. US20030073162A1 1869688
NAME/KEY: unsure
LOCATION: 1517, 1522, 44, 69, 162, 1220, 1426, 1443, 1458, 1465, 1488, 1490, 100-9-968-433-10
Score:
Percent Similarity:
Best Local Similarity:
                                           Alignment Scores: Pred. No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 2
US-09-968-433-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               뮹
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 10, Application No. US20 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ProAspAspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPheThrTyrVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ArgIleGlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHis 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LysLysSerLysArgGlyArgGlyArgProGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAGAAGTCCAAGAGGGGCCGTGGGCGTCCAGGGCGC 1507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGCCACCGCCGCCCTCGACCACCGCCCCTCTCCCCATCCGTCCCCCCTCAGGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuProProProProProSerThrThrAlaProLeuProIleArgProProSerGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCAGGCGCCTCAACAGTAGCCCCCGGGCCCCCGTCAGCCCCCTCAAGTTCTCCCCCTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ProArgArgLeuAsnSerSerProArgValProValSerProLeuLysPheSerProPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AlaProSerValLeuAspSerIleLysGluGlyPheSerPheGlnProLysLeuArgSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SerGluGluAspValSerGlnPheAspThrArgPheThrArgGlnThrProValAspSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCTTTCAGGCCCTGTCTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MetAsnTrpAspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGln
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGCCAGACGCCGGTGGACAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                       Application US/09968433
                                                                                                                                                                                                                                                                                                                                                                                                                              US20030073162A1
    3.04e-188
1947.50
90.89%
90.44%
    Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             495
```

1471 483 463

1411

443 1291 423 1231 403 1171 383

Š

S

Š 8 S δ

문 Ş Ś

δ

```
US-09-762-258-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
DB:
     1140
                                                                                                            1080
                                                                                                                                                                                                                  1020
                                                                                                                                                            308
                                                      328
                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                     288
                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                            268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29
                               \frac{\pasp\lanksp\algn\ranksp\algn\ranksp\roPhePhe\ranksp\lanksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp\ranksp
                                                                                                                                        pAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIIeGlyGlyGl
                                                                                                                                                                                                                  GAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCTACCTCACCCCAGA
                                                                                                                                                                                                                                                                                                                   GGGGGCCCTGATGTACGACATGCTCACTGGATCGCCCCCTTCACCGCAGAGAACCCGGAA
                                                                                                                                                                                                                                                                                                                                               uGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGluAsnArgLy
                                                                                                                                                                                                                                                                                                                                                                                                                                                              rMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrpTrpSerLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     uCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThrIleGluTy
                                                                                                                                                                                                                                              SLYSThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyrLeuThrProAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACCGACTTTGGACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              uLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAspPheGlyLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCTGAGATCACGCTGGCCCTGGGCCATCTCCCACTCCCAGGGCATCATCTACCGGGACCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               uAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyrArgAspLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              uLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCysPheTyrLe 188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIle-LeuGluCysLeuSerGlyGlyGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsnLeuGlyLysIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluGlyGluGlyGluProGluLeuSerProAlaAspAlaCysProLeuAlaGluLeuArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTGCAAGGAGTCTATCCATGAGGGCGCCGTCACTCACACCTTCTGCGGCACCATTGAGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGGATTGCCTCAGTGGTGGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrargalaGluargasnIleLeuGluSerValLysHisProPheIleValGluLeuala 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAspThrAlaHis 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGTGTGCTGGGCAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyAlaGlyAlaAlaMetAlaAlaValPheAspLeuAspLeuGluThrGluGluGlySer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAAAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeuArgValLeuGlyLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaAlaGlyLeuGluProValGlyHisTyrGluGluValGluLeuThrGluThrSerVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGGCGAGGCGAGCCCAGAGCTCAGCCCCGGACGCATGTCCCCTTGCCGAGTTGAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGGCCGGCCATGGCGGCCGTGTTTGATTTGGATTTGGAGACGGAGGAAGGCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (1-495) x US-09-968-433-10 (1-1637)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  74.50%
10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels:
Gaps:
  1199
                                                                                                                                                                                                                                                                                                                                                                            288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         248
                                                      348
                                                                                                      1139
                                                                                                                                                            328
                                                                                                                                                                                                            1079
                                                                                                                                                                                                                                                                                                                      1019
                                                                                                                                                                                                                                                                                                                                                                                                                               959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           168
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28
                                                                       Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                             ; ORGANISM: Homo
US-09-954-456-1137
US-09-762-258-2
                                                                                                                                                                                                          Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/954,456
CURRENT FILING DATE: 2001-09-18
PRIOR APPLICATION NUMBER: US/60/23,617
PRIOR FILING DATE: 2000-09-18
PRIOR PRIOR PAPPLICATION NUMBER: US/60/234,052
PRIOR PILING DATE: 2000-09-20
PRIOR PILING DATE: 2000-09-25
PRIOR PILING DATE: 2000-09-25
PRIOR APPLICATION NUMBER: US/60/234,923
PRIOR PILING DATE: 2000-09-25
PRIOR APPLICATION NUMBER: US/60/235,134
PRIOR APPLICATION NUMBER: US/60/235,637
PRIOR PILING DATE: 2000-09-26
PRIOR PILING DATE: 2000-09-26
PRIOR APPLICATION NUMBER: US/60/235,638
PRIOR APPLICATION NUMBER: US/60/235,711
PRIOR PILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 붕
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-954-456-1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 1137
LENGTH: 2346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1137, Application Patent No. US20020115057A1
                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQ ID NOS: 2276
SOFTWARE: Patentin version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Process
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Young,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILE REFERENCE: 689290-76
                                                                                                                                                                                                                                                                                                                      TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US/60/235,720
FILING DATE: 2000-09-27
APPLICATION NUMBER: US/60/235,840
FILING DATE: 2000-09-27
APPLICATION NUMBER: US/60/235,863
FILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1317 C-CTCAGCGAGAGTGCCAACAAGGCCTTCCTGGGGTT-ACATAAGTGGCGCG-TCTGTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   388
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GCCACCTINCNGNGCCAAGGAGTACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AANATAGCCCCGGG---TCCGTNAGCCCC--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 snSerSerProArgValProValSerProLeuLysPheSerProPheGluGlyPheArgP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                laLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPheThrTyrValAlaProSerValL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          roSerProSerLeuProGluProThr 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGGACAG-ATCAAGAGG---TTCTCTTTCAGCCCAAGT--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    euAspSerIleLysGluGlyPheSerPheGlnProLysLeuArgSerProArgArgLeuA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       --GAGCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAGTCCTGATGACACAG 1316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    alSerGlnPheAspThrArgPheThrArgGlnThrProValAspSerProAspAspThrA 388
(1-495)
                                                                                                                                                                                                                                                                                         sapiens
                                                      1.04e-167
1748.00
73.45%
64.36%
66.87%
x US-09-954-456-1137 (1-2346)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/09954456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US/09/954,456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for Identifying Anti-Cancer Therapeutic Agents Using
                                                                         Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCAAGITINCCCTIINAGGGIICGGCCA 1477
                                                   354
80
86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGTCAACCAGGGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1258
```

S,

ð 뭐

문 Ş 8 Ś 문 8 문 á 멅 S 몽 Ś

밁 Ś 먊 S 뭕 8 g 8 밁 Ş 문 Ś 밁 ঠ 뮹 S g S 밁 Ş

Ş 멍 Ş 밁

þ

```
976
346 TrpAspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGlu 365
                                                                                                      30E
                                                                                                                                                        286
                                                                                                                                                                                 856
                                                                                                                                                                                                         266
                                                                                                                                                                                                                                    796
                                                                                                                                                                                                                                                            246
                                                                                                                                                                                                                                                                                      736
                                                                                                                                                                                                                                                                                                                                           676
                                                                                                                                                                                                                                                                                                                                                                   206
                                                                                                                                                                                                                                                                                                                                                                                             616
                                                                                                                                                                                                                                                                                                                                                                                                                       186
                                                                                                                                                                                                                                                                                                                                                                                                                                                556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             316
                                                                                                                                                                                                                                                                                                               226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28
                       GlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsn 345
                                                                                                                                                                                TrpSerLeuglyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGlu 285
                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsnLeu 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGGATGAGCTGGAG------GAGGGGGGGTCAGTTAAATGAAAGCATGGACCAT 19:
                                                                          ThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIle 325
                                                                                                                              ATAGAAAGAAAACAATTGACAAAATGCTCAAATGTAAACTCAATTTGCCTCCCTACCTC 975
                                                                                                                                                 AsnArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyrLeu 305
                                                                                                                                                                                                                                    ATAGAATACATGGCCCCTGAAATCTTGATGAGAAGTGGCCACAATCGTGCTGGGATTGG
                                                                                                                                                                                                                                                  ileGluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrp
                                                                                                                                                                                                                                                                                     ArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAsp 225
                                                                                                                                                                                                                                                                                                                                                                                           TTTTACTTGGCAGAAATCTCCATGGCTTTGGGGCATTTACATCAAAAGGGGATCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                            PheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyr 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACTAGTGTGAACAGAGGGCCAGAAAAAAATCAGACCAGAATGTTTTGAGCTACTTCGGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrSerValAsnValGlyProGluArglleGlyProHisCysPheGluLeuLeuArgVal 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGGGAGTTGGACCATATGAACTTGGCATGGAACATTGTGAGAAATTTGAAATCTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AlaGlyLeuGluPro-------ValGlyHisTyrGluGluValGluLeuThrGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluGlyGluProGluLeuSerProAlaAspAlaCysProLeuAlaGlu---LeuArgAla 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ------MetAlaAlaValPheAspLeuAspLeuGluThrGluGluGlySerGluGly 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGAGGCGACGAAGGAGGCGGGACGGCTTTTTACCCAGCCCCGGACTTCCGAGACAGGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              315
                                                                                                                                                                                                                                    855
                                                                                                                                                                                                                                                             265
                                                                                                                                                                                                                                                                                                                                                                                             675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             87
밁
28
ATGAGGCGACGAAGGAGGCGGGACGGCTTTTTACCCAGCCCCCGGAC
```

Ś 맑 Ś 밁 S 밁 S 맑 Ś В S 8 Ś 片 Ş 밁 S B S B S 片 S 맑 S 밁 S g, S 밁 Ś

D Qy	US-09-76	Alignment Pred. No.: Score: Percent Si Best Local Query Matc DB:	RESULT 4 US-09-920-6 Sequence Publicati GENERAL I APPLICAN TITLE OP FILE REF CURRENT CURRENT CURRENT CURRENT CURRENT CURRENT CURRENT CURRENT FUNDBER OO SEQ ID NO SEQ	D Qy	뫄	Q	B 8	υρ Qy	95 V2	ag VQ	Qy da	da Vy	B 8	Db
1 MetAlaArgGlyArg	2-258-2 (1-495) x US	ment Scores: 1.04e-16 . No.: 1748.00 ent Similarity: 73.45% Local Similarity: 64.36% / Match: 10	ESULT 4  S-09-920-677-3  Sequence 3, Application US/099  Sequence 3, Application US20030083284A  GENERAL INFORMATION:  APPLICANT: Dest P. Monia APPLICANT: Lex M. Cowsert  TITLE OF INVENTION: ANTISNSE  FILE REFERENCE RTS-0245  CURRENT APPLICATION NUMBER: U.  CURRENT FILING DATE: 2001-08  NUMBER OF SEQ ID NOS: 49  SEQ ID NO 3  LENGTH: 2346  TYPE: DNA  ORGANISM: Homo sapiens  PEATURE:  NAME/KSY: CDS  LOCATION: (28)(1605)  S-09-920-677-3	485LysSerLys	1564 ATGATCTCCAAACG	484	472 ThrAlaProLeuPro	464 LeuProProProProProSer     1444 GAATACCCAATGGAAACAAGT		426 ArgLeuAsnSerSe      1336 AGATTTATTGGCAG	406 SerValLeuAspSe         :::    1276 TCTGTACTTGAAAG	386 AspThrAlaLeuSe     :::        1216 GACTCAACTCTCAG	366 GluAspValSerGlnPheAs; 	::::::      1096 TGGGAAGAACTTCT
etAlaArgGlyArgAlaArgGlyAlaGlyAlaAla	-09-920-677-3 (1-2346)	e-167 Length: 00 Matches: 38 Conservative: 58 Mismatches: 59 Indels: 69 Gaps:	09920677 284A1 E ENSE MODULATION OF P70 S6 R: US/09/920,677 L-08-01	LysSerLysArgGlyArgGlyArg 492	CTCCAAAOGGCCAGAGCACCTGCGTATGAATCTATGACAGAGCAATGCTTTTAAT		ThralaproLeuProIleArgProProSerGlyThrLys	LeuproProProProProSer	SerLeuProGluPro         GC	ArgLeuAsnSerSerProArgValProValSerProLeuLysPheSerProPh 	LeuaspSerI1eLysG1uG1yPheSerPheG1nProLysLeuarg     :::    :::       CTTGAAAGTGTGAAAGAAAAGTTTTCCTTTGAACCAAAAATCCGA	AspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGly     :::                	nPheAspThrArgPheThrArgGlnThrProVal           grirgariccaagirtacacgicagacaccigic	::::::
CCGGACTTCCGAGACAGGGAA 8		8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	KINASE EXPRESSION		TGACAGAGCAATGCTTTTAAT 1623		;	GTGACAATGAGTGGGGAAGCA 1	roLeuProProLeu 	LysPheSerProPhe 4	ProLysLeuArgSerProArg 4	GlyPheThrTyrValAlaPro 405 	]ThrProValAspSerProAsp 385 	[:::

```
TGGGAAGAACTTCTGGCTCGAAAGGTGGAGCCCCCTTTAAACCTCTGTTGCAATCTGAA
                        TrpAspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGlu
                                                                            GGAGCTGGTCCTGGGGGACGCTGGAGAAGTTCAAGCTCATCCATTCTTTAGACACATTAAC
                                                                                                                                                     ACACAAGAAGCCAGAGATCTGCTTAAAAAAGCTGCTGAAAAAGAAATGCTGCTTCTCGTCTG
                                                                                                                                                                       ThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAspProSerGlnArgIle
                                                                                                                                                                                                                                                     AsnArgLysLysThrMetAspLysIleIieArgGlyLysLeuAlaLeuProProTyrLeu
                                                                                                                                                                                                                                                                                                                            TrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGlu
                                                                                                                                                                                                                                                                                                                                                                              ArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyr 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsnLeu 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AATAGAAAGAAAACAATTGACAAAATCCTCAAATGTAAACTCAATTTGCCTCCCTACCTC
                                                                                                                                                                                                                                                                                                      TGGAGTTTGGGAGCATTAATGTATGACATGCTGACTGGAGCACCCCCATTCACTGGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThr 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITTACTTGGCAGAAATCTCCATGGCTTTGGGGCATTTACATCAAAAGGGGATCATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCys 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GATTTAATTTATGCCTTTCAGACTGGTGGAAAACTCTACCTCATCCTTGAGTATCTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSer 165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLysHisProPheIleVal 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyLysīleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAsp 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AlaGlyLeuGluPro------ValGlyHisTyrGluGluValGluLeuThrGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGAGACCIGAAGCCGGAGATATCATGCTTAATCACCAAGGTCATGTGAAACTAACAGAC 735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGAAAATATTTGCCATGAAGGTGCTTAAAAAGGCAATGATAGTAAGAAATGCTAAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GOOGGAGTTGGACCATATGAACTTGGCATGGAACATTGTGAGAATTTGAAATCTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GAGGATGAGCTGGAG-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluGlyGluProGluLeuSerProAlaAspAlaCysProLeuAlaGlu---LeuArgAla 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACAGCTCATACAAAAGCAGAACGGAATATTCTGGAGGAAGTAAAGCATCCCTTCATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTAGTGTGAACAGAGGGCCAGAAAAAATCAGACCAGAATGTTTTGAGCTACTTCGGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrSerValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeuArgVal
                                                                                                  YGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -GAGGGGGGTCAGTTAAATGAAAGCATGGACCAT 195
                                                                            1095
                                                                                                                                                     1035
                                                                                                                                                                                                                                                                                                                                                                                                                     265
                                      365
                                                                                                                                                                                                                                                               305
                                                                                                                                                                                                                                                                                                      915
                                                                                                                                                                                                                                                                                                                                            285
                                                                                                                                                                                                                                                                                                                                                                                855
                                                                                                                                                                                                                                                                                                                                                                                                                                                           795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                     APPLICANT: GENOMIC HEALTH
APPLICANT: Baker, Joffre B.
APPLICANT: Baker, Maureen T.
APPLICANT: Kiefer, Michael C.
APPLICANT: Kiefer, Michael C.
APPLICANT: Shak, Steve
APPLICANT: Walker, Michael Graham
ITILE OF INVENTION: GENE EXPRESSION PROFILING IN BIOPSIED TUMOR TISSUES
FILE REFERENCE: 39740-0001US
CURRENT APPLICATION NUMBER: US/10/388,360
CURRENT APPLICATION NUMBER: US 60/412,049
PRIOR APPLICATION NUMBER: US 60/412,049
PRIOR APPLICATION NUMBER: US 60/364,890
PRIOR APPLICATION NUMBER: US 60/364,890
PRIOR APPLICATION ONDER: US 60/364,890
PRIOR FILING DATE: 2002-03-13
NUMBER OF SEQ ID NOS: 384
SOCTWARE: FastSEQ for Windows Version 4.0
LENGTH: 2346
                                    Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                              Score:
  US-09-762-258-2 (1-495)
                                                                                                                                                 Alignment Scores
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 5
US-10-388-360-321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           $
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 321, A Publication No.
                                                                                                                                                                                                       ORGANISM: Homo
                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                  8
..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAATTTAAGGCAAAAAGGTGGAGAGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGATCTCCAAACGGCCAGAGCACCTGCGTATGAATCTATGACAGAGCAATGCTTTTAAT 162:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LeuProProProProSer-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGGGGAAGAGGTGCTTCGGCCAGC------ACAGCAAATCCTCAGACACCTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GluGlyPheArgProSerProSerLeuProGluProThrGluLeuProLeuProProLeu 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -----LysSerLysArgGlyArgGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrAlaProLeuProIleArgProProSerGlyThrLys---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGATGTAAGTCAGTTTGATTCCAAGTTTACACGTCAGACACCCGTCGACAGCCCAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTGTACTTGAAAGTGTGAAAGAAAAGTTTTCCTTTGAACCAAAAATCCGATCACCTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SerValLeuAspSerIleLysGluGlyPheSerPheGlnProLysLeuArgSerProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPheThrTyrValAlaPro 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluAspValSerGlnPheAspThrArgPheThrArgGlnThrProValAspSerProAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GACTCAACTCTCAGTGAAAGTGCCAATCAGGTCTTTCTGGGTTTTTACATATGTGGCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Application
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US20030225528A1
                                    1.04e-167
1748.00
73.45%
64.36%
66.87%
x US-10-388-360-321 (1-2346)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US/10388360
                                  Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1653
```

126

316

98

256

9

196

50

148

31

14

106

471 1443 . 1335

425 1275

1395 443

밁 S 밁 S 망 S 뮹 8 당 δ d Ş 문 Ś 밁 ঠ 片 Ś 밁 5 용 Š g Ş 밁 Ś 8 Ś 밁 S 유 B D. Q 밁 Ś

1096

1036 346

밁

Ő

```
976
                                                                                                                                             306
                                                                                                                                                                                                                                                                                                                                796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    496
                                                                                                                                                                                  916
                                                                                                                                                                                                                                                        856
                                                                                                                                                                                                                                                                                                                                                                 246
                                                                                                                                                                                                                                                                                                                                                                                                                                           226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     106
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSer
TrpAspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGlu
                                      GGAGCTGGTCCTGGGGACGCTGGAGAAGTTCAAGCTCATCCATTCTTAGACACATTAAC
                                                                                                            ACACAAGAAGCCAGAGATCTGCTTAAAAAAGCTGCTGAAAAAGAAATGCTGCTTCTCGTCTG
                                                                                                                                                                                                      AsnArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyrLeu
                                                                                                                                                                                                                                                        TGGAGTTTGGGAGCATTAATGTATGACATGCTGACTGGAGCACCCCCATTCACTGGGGAG
                                                                                                                                                                                                                                                                              TrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGlu
                                                                                                                                                                                                                                                                                                                                                    IleGluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrp
                                                                                                                                                                                                                                                                                                                                                                                                                            PheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AGAGACCTGAAGCCGGAGAATATCATGCTTAATCACCAAGGTCATGTGAAACTAACAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GATTTAATTTATGCCTTTCAGACTGGTGGAAAACTCTACCTCATCCTTGAGTATCTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrAlaHisThrArgAlaGiuArgAsnIleLeuGluSerValLysHisProPheIleVal 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuGlyLysGlyGlyTyrGiyLysValPheGlnValArgLysValGlnGlyThrAsnLeu 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGGGAGTTGGACCATATGAACTTGGCATGGAACATTGTGAGAAATTTGAAATCTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ÁTGAGGCGÁCGAÄGGÁGGCGGGACGGCTTTTACCCCAGCCCCGGACTTCCGAGACAGGGAA
                                                            GlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsn
                                                                                                                                           ThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIle
                                                                                                                                                                                  MATAGAAAGAAAACAATTGACAAAATCCTCAAATGTAAACTCAATTTGCCTCCCTACCTC
                                                                                                                                                                                                                                                                                                                              ATAGAATACATGGCCCCTGAAATCTTGATGAGAAGTGGCCACAATCGTGCTGTGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                      ACAGCTCATACAAAAGCAGAACGGAATATTCTGGAGGAAGTAAAGCATCCCTTCATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGGAAAATATTTGCCATGAAGGTGCTTAAAAAGGCAATGATAGTAAGAAATGCTAAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GluGlyGluProGluLeuSerProAlaAspAlaCysProLeuAlaGlu---LeuArgAla 49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ------MetAlaAlaValPheAspLeuAspLeuGluThrGluGluGlySerGluGly 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MetAlaArgGlyArgArgAlaArgGlyAlaGlyAlaAla----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTGGTAAAGGGGGCTATGGAAAGGTTTTTCAAGTACGAAAAGTAACAGGAGCAAATACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTAGTGTGAACAGAGGGCCAGAAAAATCAGACCAGAATGTTTTGAGCTACTTCGGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrSerValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeuArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AlaGlyLeuGluPro------ValGlyHisTyrGluGluValGluLeuThrGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAGGATGAGCTGGAG------GAGGGGGGTCAGTTAAATGAAAGCATGGACCAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1095
                                                                                                            1035
                                                                                                                                             325
                                                                                                                                                                                  975
                                                                                                                                                                                                                     305
                                                                                                                                                                                                                                                        915
                                                                                                                                                                                                                                                                                           285
                                                                                                                                                                                                                                                                                                                                858
                                                                                                                                                                                                                                                                                                                                                                   265
                                                                                                                                                                                                                                                                                                                                                                                                      795
                                                                                                                                                                                                                                                                                                                                                                                                                                         245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          735
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ទទ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65
                                                                                                                        ; LENGTH: 1800
; TYPE: DNA
; ORGANIAM: Rattus no
; FEATURE:
; ANAME/KEY: CDS
; LOCATION: (134)..(1
; OTHER IMFORMATION:
US-10-316-253-31
                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-316-253-31
; Sequence 31, Application US/10316253
; Publication No. US20030.62766A1
; GENERAL INFORMATION:
; APPLICANT: The Procter & Gamble Company
; APPLICANT: Thompson, Larry
: APPLICANT: Thompson, Larry
Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            끊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     벍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ď.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                           Pred. No.:
                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     문
                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn version 3.1
SEQ ID NO 31
                                                                                                                                                                                                                                                                                                                      APPLICANT: Wang, Feng
APPLICANT: Greis, Kenneth
TITLE OF INVENTION: Anglogenesis Modulating
FILE REFERENCE: 8865M
CURRENT APPLICATION NUMBER: US/10/316,253
CURRENT FILING DATE: 2002-12-10
PRIOR APPLICATION NUMBER: US 60/355,295
PRIOR FILING DATE: 2002-02-08
                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1564
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1096 TGGGAAGAACTTCTGGCTCGAAAGGTGGAGCCCCCTTTAAACCTCTGTTGCAATCTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1624 GAATTTAAGGCAAAAAGGTGGAGAGGGGAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 366 GluAspValSerGlnPheAspThrArgPheThrArgGlnThrProValAspSerProAsp 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        406
                                                                                                                                                               CDS
(134)..(1642)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGATCTCCAAACGGCCAGAGCACCTGCGTATGAATCTATGACAGAGCAATGCTTTTAAT 1623
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThralaProLeuProIleArgProProSerGlyThrLys--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGGGAAGAGGTGCTTCGGCCAGC----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GluGlyPheArgProSerProSerLeuProGluProThrGluLeuProLeuProProLeu 463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SerValLeuAspSerIleLysGluGlyPheSerPheGlnProLysLeuArgSerProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GACTCAACTCTCAGTGAAAAGTGCCAATCAGGTCTTTCTGGGTTTTACATATGTGGCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ------iyeseriyekrgGlykrgGlykrg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCGGCACCACTTCCAATACGACAGCCGAACTCTGGGCCATACAAAAAAACAAGCTTTTCCC 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LeuProProProProSer------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGATTTATTGGCAGCCCACGAACACCTGTCAGCCCAGTCAAATTTTCTCCTGGGGATTTC 1395
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ArgLeuAsnSerSerProArgValProValSerProLeuLysPheSerPro-----Phe 443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPheThrTyrValAlaPro 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCTGTÄCTTGAAAGTGTGAAAGÄAAAGTTTTCCTTTGAACCAAAAATCCGATCACCTCGA 1335
                                                                                                                                                                                                                     norvegicus
 1.15e-167
1746.00
80.61%
70.20%
66.79%
               Length:
Matches:
Conservative:
Mismatches:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       - ACAGCAAATCCTCAGACACCTGTG 1443
```

-----Thr 471

484

425 1275

Ś B Ś 片 5 밁 S 밁 ð 밁 ð B Ś

S 밁 S 문 S 밁 뫄

8

S

음 성

В S 맒 S 밁 Ś 밁 S 문 Ś 밁

```
á
                  문
                                 Ś
                                                                    S
                                                     문
                                                                                         문
                                                                                                         Ś
                                                                                                                         밁
                                                                                                                                            Ϋ́
                                                                                                                                                                 망
                                                                                                                                                                               Ś
                                                                                                                                                                                                     밁
                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                     ď
                                                                                                                                                                                                                                                        છ
                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                Вb
                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                  먎
                                                                                                                                                                                                                                                                                                                                                                      $
                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                         ঠ
                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   묽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-762-258-2 (1-495) x US-10-316-253-31 (1-1800)
                   1082
                                                       1022
                                    329
                                                                        309
                                                                                                                                                                   842
 349
                                                                                          962
                                                                                                                              902
                                                                                                                                                                                   249
                                                                                                                                                                                                                                                                                                 189
                                                                                                                                                                                                                                                                                                                                                                         149
                                                                                                            289
                                                                                                                                                269
                                                                                                                                                                                                       782
                                                                                                                                                                                                                         229
                                                                                                                                                                                                                                           722
                                                                                                                                                                                                                                                            209
                                                                                                                                                                                                                                                                               662
                                                                                                                                                                                                                                                                                                                    602
                                                                                                                                                                                                                                                                                                                                      169
                                                                                                                                                                                                                                                                                                                                                       542
                                                                                                                                                                                                                                                                                                                                                                                            482
                                                                                                                                                                                                                                                                                                                                                                                                              129
                                                                                                                                                                                                                                                                                                                                                                                                                               422
                                                                                                                                                                                                                                                                                                                                                                                                                                                  109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ų
A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14
                                                                                                                                                                                                                                                                                                                 GlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGluAsnArgLys
                                                                                                                                                                                                                                         ProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsnTrpAspAsp 348
                                                                   AlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIleGlyGlyGly
                                                                                         CysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThrIleGluTyr
                                                                                                                                                                                                                                                                                                                                                                                                                               LeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGluGluAspVal
                                                                                                                                                                             MetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrpTrpSerLeu
                                                                                                                                                                                                                                                                                                                                                                 TyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSerGlyGlyGlu 168
                                                                                                                                                                                                                                                                                                                                                                                         ThrargalaGluargasnIleLeuGluSerValLysHisProPheIleValGluLeuala 148
                                                      GCTCGAGATCTGCTTAAAAAGCTGCTGAAAAAGAAATGCTGCTTCTCGTCTTGGAGCTGGC
                                                                                                                                                                   ATGGCCCCTGAAATCTTGATGAGAAGCGGCCACAACCGTGCTGTGGATTTGGTGGAGTTTG
                                                                                                                                                                                                                                                                                                                                                       TATECCTTTCAGACCGGTGGAAAACTCTACCTCATCCTTGAGTATCTCAGTGGAGGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsnLeuGlyLysIle 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAGAGGCCAGAAAAAACAGACCAGAATGTTTTGAGCTACTTCGGGTACTTGGTAAA 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GluPro------ValGlyHisTyrGluGluValGluLeuThrGluThrSerVal 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGGAG-----GAGGGGGGTCAGTTAAATGAAAGCATGGACCATGGGGGAGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ProGluLeuSerProAlaAspAlaCysProLeuAlaGlu---LeuArgAlaAlaGlyLeu 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATGGCASGAGTGTTTGACATAGACCTGGACCAGCCAGAGGATGCAGGCTCTGAGGATGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MetAlaAlaValPheAspLeuAspLeuGluThrGluGluGlySerGluGlyGluGlyGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GGGGGCTATGGAAAGGTTTTTCAAGTACGAAAAGTAACAGGAGCAAATACTGGGAAGATA 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeuArgValLeuGlyLys 88
                  1141
                                                      1081
                                                                                                                                                                                                                                                                                                                                     188
                                                                        328
                                                                                                                                                288
                                                                                                                                                                                   268
                                                                                                                                                                                                       841
                                                                                                                                                                                                                        248
                                                                                                                                                                                                                                          781
                                                                                                                                                                                                                                                           228
                                                                                                                                                                                                                                                                                               208
                                                                                                                                                                                                                                                                                                                                                       601
                                                                                                                              961
                                                                                                                                                                   901
                                                                                                                                                                                                                                                                              721
                                                                                                                                                                                                                                                                                                                  661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   193
```

US-09-762-258-2  QY	Alignment Scores: Pred. No.: Score: Score: Score: Spercent Similarity: Best Local Similarity Query Match: DB:	RESULT 7  US-10-316-253-33  Sequence 33, Appli; Publication No. US: GENERAL INFORMATION APPLICANT: The pricant: The pricant: Mang, APPLICANT: Greis APPLICANT: Greis APPLICANT: Greis APPLICANT: Greis CURRENT APPLICATION FILE REFERENCE: 8 CURRENT PILING DATE PRIOR APPLICATION FRIOR APPLICATION FRIOR APPLICATION FRIOR APPLICATION FRIOR FILING DATE CURRENT PILING DATE FRIOR FILING DATE FROM FILING DATE CURRENT PILING DATE FRIOR FILING DATE FROM FILING DATE FROM FILING DATE GORDANISM: Rattus FRATURE: FRATURE: FRATURE: CDGANISM: RATTUS FRATURE: CDGANISM: RATTUS FRATURE: COMME/KEY: CDS JOCATION: (22) JOCATION: (22) JOCATION: (23)	Qy 479 P Db 1562 C	Qy 464 L Db 1502 G	Qy 445 g Db 1442 g	Oy 429 S Db 1382 G	Qy 409 A Db 1322 G	Qy 389 I Db 1262 C	Qy 369 S	Db 1142 C
(1-495) x US-10-316-253- tAlaArgGlyArgArgAlaArgGl 	6.54e-167 1740.00 77.97% 68.03% 66.56%	lication US/10316253 US20030162706A1 ION: Procter & Gamble Compaers, Kevin mpson, Larry g, Feng is, Kenneth ION: Angiogenesis Modu 8865M 10N: Angiogenesis Modu 710N NUMBER: US/10/316 DATE: 2002-12-10 DATE: 2002-12-08 DATE: 2002-08 D NOS: 308 tin version 3.1 tin version 3.1 c. (1599) ION:	roProSerGlyThrLysLy            AGCCCAACTCTGGGCCATACAA	LeuProProProProProSerThrThrAlaProLeuProIleArg              GGAATAGAGCAGATGGATGTGACAACGAGCGGGGAAGCTTCAGCGCCACTTCCAATCCCA	GlyPheArgProSerProSerLeuProGluProThrGluLeuProLeuProProLeu 	erSerProArgValProValSerI                       GTAGCCCACGAACGCCTGTCAGCC	AspSerIleLysGluGlyPheSerPheGlnProLy 	LeuSerGluSerAlaAsnGlnAlaPheLeuGlyPheThrTyrValAlaProSerValLeu 	SerGlnPheAspThrArgPheThrArgGlnThrProValAspSerProAspAspThrAla             :::::	:::   :::
33 (1-2287) YAlaGlyAlaAla	Length: 2287 Matches: 349 Conservative: 51 Mismatches: 83 Indels: 80 Gaps: 8	my (lating Proteins ;,253	SSerLys 487 	rAlaProLeuP 	OGluProThrGluLeuProLet  :::            :: TCAGACACCTGTGGAATACCCAAT	erProLeuLysPheSerProPheGlu      ::           CCCAGTCAAATTCTCTCCTGGGGATTTCTGGGGACGA	SLeuArgSerProA  :::          AATCCGATCGCCTC	peLeuGlyPheThrTyrValAlaPr                TCTGGGTTTTACATATGTGGCTCC	rGlnPheAspThrArgPheThrArgGlnThrProValAspSerProAspAspThrAla          :::::	:::
				uProlleArg 478           rccaatccga 1561	roLeuProProLeu 463   ::: CAATGGAAACAAGT 1501	444 CTGGGGACGA 1441	rgArgLeuAsn 428       GAAGATTTATT 1381	oSerValLeu 408           ATCTGTACTT 1321	pAspThrAla 388     ::: TGACTCAACT 1261	 AGAGGATGTG 1201

Ş

14

밁 Ś 日 Ś 밝

190

50

AlaGlyLeuGlupro----

142

برا برا

S

9

250 8

```
ThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIle 325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCys
GluAspValSerGlnPheAspThrArgPheThrArgGlnThrProValAspSerProAsp
                                                                    TrpAspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGlu
                                                                                                                                  GGAGCTGGCCCTGGGGATGCTGGAGAAGTCCAAGCGCATCCATTTTTTAGACACATTAAC
                                                                                                                                                      GlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsn 345
                                                                                                                                                                                                                ACACAAGAAGCTCGAGATCTGCTTAAAAAGCTGCTGAAGAGAAATGCTGCTTCTCGTCTT
                                                                                                                                                                                                                                                                                                                                AsnArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                         TGGAGTCTGGGAGCATTAATGTATGACATGCTGACTGGAGCACCTCCATTCACTGGGGAG
                                                                                                                                                                                                                                                                                                                                                                                                             TrpSerieuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATAGAATACATGGCCCCTGAAATCTTGATGAGAAGCGGCCACAACCGTGCTGTGGATTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IleGluTyrMetAlaProGluIleLeuValArgSerGlyHisAsnArgAlaValAspTrp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTTACTIGGCTGAAATCTCCATGGCTTTGGGGCAFTTACATCAAAAGGGGATTATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GATTTAATTTATGCCTTTCAGACCGGTGGAAAACTCTACCTCATCCTTGAGTATCTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLysHisProPheIleVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GGGAAGATATTTGCCATGAAGGTGCTTAAAAAGGCAATGATAGTAAGAAATGCTAAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsnLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AATAGAAAGAAGACAATTGACAAAATCCTCAAATGTAAACTTAATTTGCCTCCCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTTGGACTATGCAAAGAATCTATTCATGATGGAACAGTCACGCACACATTTTGTGGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGAGACCTGAAGCCGGAGAACATCATGCTTAATCACCAAGGTCACGTGAAGCTGACAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACAGCTCATACAAAAGCAGAGCGGAATATTCTGGAGGAAGTAAAGCATCCCTTCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrSerValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GluGlyGluProGluLeuSerProAlaAspAlaCysProLeuAlaGlu---LeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTTGGTAAAGGGGGCTATGGAAAGGTTTTTCAAGTACGAAAAAGTAACAGGAGCAAATACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ACTAGTGTGAACAGAGGGCCAGAAAAATCAGACCAGAATGTTTTGAGCTACTTCGGGTÄ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----ValGlyHisTyrGluGluValGluLeuThrGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GAGGGGGTCAGTTAAATGAAAGCATGGACCAT
                                                                                  365
                                                                                                                                1089
    385
                                           1149
                                                                                                                                                                                                                  1029
                                                                                                                                                                                                                                                                                                                                                                                                                             285
                                                                                                                                                                                                                                                                                                    969
                                                                                                                                                                                                                                                                                                                                             305
                                                                                                                                                                                                                                                                                                                                                                                         909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49
                                                                                                                                                                                                                                                                                                                APPLICANT: ELASHOFF, Michael

APPLICANT: ELASHOFF, Michael

ITITE OF INVENTION: Cardiotoxin Molecular Toxicology Modeling

FILE REFERENCE: 44921-5090US

CURRENT APPLICATION NUMBER: US/10/191,803

CURRENT APPLICATION NUMBER: US 60/303,819

PRIOR APPLICATION NUMBER: US 60/303,819

PRIOR PILING DATE: 2001-07-10

PRIOR APPLICATION NUMBER: US 60/305,623

PRIOR FILING DATE: 2001-07-17

PRIOR APPLICATION NUMBER: US 60/369,351

PRIOR APPLICATION NUMBER: US 60/377,611

PRIOR APPLICATION NUMBER: US 60/377,611

PRIOR APPLICATION NUMBER: US 60/377,611

PRIOR FILING DATE: 2002-04-03

PRIOR APPLICATION NUMBER: US 60/377,611

PRIOR FILING DATE: 2002-05-06

NUMBER OF SEQ ID NOS: 1140

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 230

LENGTH: 2287

TYPE: DNA

ORGANISM: Rattus norvegicus

FEATURE:

OTHER INFORMATION: Genbank Accession No. US20040014040A1 NM_0319
                                                                                                                                                Score:
Percent Similarity:
Best Local Similarity:
Query Match:
    멅
                                      S
                                                                                    US-09-762-258-2 (1-495) x US-10-191-803-230 (1-2287)
                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                    US-10-191-803-230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-191-803-230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         よ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: MENDRICK, Donna
APPLICANT: PORTER, Mark
APPLICANT: JOHNSON, Kory
APPLICANT: HIGGS, Brandon
APPLICANT: CASTLE, Arthur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 230, Application US/10191803 Publication No. US20040014040A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                       No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1270
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1150 GAGGATGTGAGTCAGTTTGATTCAAAGTTTACTCGTCAGACACCTGTTGACAGCCCCGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1510 CCAATCCGACAGCCCAACTCTGGGCCATACAAAAAACAA 1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1210 GACTCAACTCTCAGTGAAAGTGCCAACCAGGTCTTTCTGGGTTTTACATATGTGGCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          386 AspThrAlaLeuSerGluSerAlaAsmGlnAlaPheLeuGlyPheThrTyrValAlaPro 405
    22
    ATGAGGCGACGACGGAGGCGGGACGGCTTTTACCCAGCGCCTGACTTCCGACACAGGGAA
                                      MetAlaArgGlyArgArgAlaArgGlyAlaGlyAlaAla----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ArgLeuAsnSerSerProArgValProValSerProLeuLysPheSerProPheGlu---- 444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SerValLeuAspSerIleLysGluGlyPheSerPheGlnProLysLeuArgSerProArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ProlleArgProPro---SerGlyThrLysLysSerLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GAAACAAGTGGAATAGAGCAGATGGATGTGÄČAĀČGAGCGGGGAAGCTTCAGCGCCĀČTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProProLeuLeuProProProProProSerThrThr------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGGACGAGGTGCTTCAGCCAGCACAGCAAATCCTCAGACACCTGTGGAATACCCAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTGTACTTGAAAGTGTGAAAGAAAAGTTTTCTTTTGAACCAAAAATCCGATCGCCTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ------GlyPheArgProSerProSerLeuProGlu---ProThrGluLeuProLeu 460
                                                                                                                                                                                                                                                                                                                           Genbank Accession No. US20040014040A1 NM_031985
                                                                                                                             6.54e-167
1740.00
77.97%
68.03%
66.56%
                                                                                                                                                Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                             2287
549
83
80
80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AlaProLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1449
    81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1209
                                             13
```

Ś 밁 á

8

В 5 문 á 밁 8 밁 S 밁

306

850 266

문

1030

S

246 730 뭕 δ 밁 ð 밁 Ś 8 ð В S ДĎ Ś B Ş 당

670

610

186

206

550

166

490

밁

190

Ś

50

g Ş

250

66

310 106

AlaProLeu 475

1509

1449

460

444

1269

1209 405

385

86

문 Ş 밁

142

7 82 <u>+</u>4

```
TrpAspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuGlnSerGlu
                                                                                                                                 GlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHisMetAsn
                                                                                                                                                                                                                                                                                               AsnArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProProTyrLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                       TEGGAAGAGCTTTTGGCTCGGAAGGTGGAGCGCCCCTTTAAGCCTCTGTTGCAATCTGAA
                                                                                                                                                                                        ACACAAGAAGCTCGAGATCTGCTTAAAAAAGCTGCTGAAGAGAAAATGCTGCTTCTCGTCTT
                                                                                                                                                                                                                                                                                                                                                        TGGAGTCTGGGAGCATTAATGTATGACATGCTGACTGGAGCACCTCCATTCACTGGGGAG
                                                                                                                                                                                                                                                                                                                                                                                TrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerProProPheThrAlaGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCysGlyThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeuThrAsp 225
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TTTACTTGGCTGAAATCTCCATGGCTTTGGGGCATTACATCAAAAGGGGATTATCTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAlaCys 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GOOGGAGTTOGACCATATGAACTTGGCATGGAACATTGTGAGAATTTGAAATCTCAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGlnArgIle
                                                                                                                                                                                                                                                                       AATAGAAAGAAGACAATTGACAAAATCCTCAAATGTAAACTTAATTTGCCTCCCTACCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGAGACCTGAAGCCGGAGAACATCATGCTTAATCACCAAGGTCACGTGAAGCTGACAGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIleIleTyr 205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAGGAGAACTATTTATGCAGTTAGAAAGAGAGGGGATATTCATGGAAGATACAGCTTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GATTTAATTTATGCCTTTCAGACCGGTGGAAAACTCTACCTCATCCTTGAGTATCTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsnLeu 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTGGACTATGCAAAGAATCTATTCATGATGGAACAGTCACGCACACATTTTGTGGAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGCTCATACAAAAGCAGAGCGGAATATTCTGGAGGAAGTAAAGCATCCCTTCATTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLysHisProPheIleVal 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GEGAAGATATTTGCCATGAAGGTGCTTAAAAAGGCAATGATAGTAAGAAATGCTAAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAsp 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrSerValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeuArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AlaGlyLeuGluPro------ValGlyHisTyrGluGluValGluLeuThrGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GluGlyGluProGluLeuSerProAlaAspAlaCysProLeuAlaGlu---LeuArgAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTTGGTAAAGGGGGCTATGGAAAGGTTTTTCAAGTACGAAAAGTAACAGGAGCAAATACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACTAGTGTGAACAGAGGGCCAGAAAAATCAGACCAGAATGTTTTGAGCTACTTCGGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGATGAGCTGGAG------GAGGGGGGTCAGTTAAATGAAAGCATGGACCAT
                                                                                                                                                                                                                                                                                                                                                                                               285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              265
                                                                                                                                              345
                                                                                                                                                                                        1029
                                                                                                                                                                                                                             325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           245
                          1149
                                                                                                       1089
                                                                                                                                                                                                                                                                       969
                                                                                                                                                                                                                                                                                                                                                        909
                                                                                                                                                                                                                                                                                                                                                                                                                                       849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        429
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       249
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              65
                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Kovalic, David K.
APPLICANT: Screen, Screen, Steven E
APPLICANT: Tabaska, Jack B
APPLICANT: Tabaska, Jack B
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
PILE REFERENCE: 38-21(53313)B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILLING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 26674
LENGTH: 2362
TYPE: DNA
ORGANISM: Homo sapiens
PEATURE: INFORMATION: Clone ID: LIB4656-028-B10_FLI
US-10-425-114-26874
                     δ
                                                             멼
                                                                                              Ś
                                                                                                                                              밁
                                                                                                                                                                               á
                                                                                                                                                                                                                                                                                    Percent Similarity:
Best Local Similarity:
Query Match:
                                                                                                                                                                                                                             US-09-762-258-2 (1-495)
                                                                                                                                                                                                                                                                                                                                                                                           Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 9
US-10-425-114-26874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           벍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 26874, Application US/10425114
Publication No. US20040034888A1
GENERAL INFORMATION:
APPLICANT: Liu, Jingdong
APPLICANT: Zhou, Yihua
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1330
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1210 GACTCAACTCTCAGTGAAAGTGCCAACCAGGTCTTTCTGGGGTTTTACATATGTGGCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   426
31 GluGlyGluProGluLeuSerProAlaAspAlaCysProLeuAlaGlu---LeuArgAla 49
                                                               39
                                                                                                                                              ÀTGAGGCGÀCGAÀGGÀGGCGGGACGGCTTTTACCCAGCCCCGGACTTCCGAGACAGGGAA
                                                                                                                                                                                   MetAlaArgGlyArgArgAlaArgGlyAlaGlyAlaAla----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ProIleArgProPro---SerGlyThrLysLysSerLys 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGGGGACGAGGTGCTTCAGCCAGCACAGCAAATCCTCAGACACCCTGTGGAATACCCAATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCANTCCGACAGCCCAACTCTGGGCCATACAAAAAAAAA 1548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAACAAGTGGAATAGAGCAGATGGATGTGACAACGAGCGGGGAAGCTTCAGCGCCACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ArgLeuAsnSerSerProArgValProValSerProLeuLysPheSerProPheGlu---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SerValLeuAspSerIleLysGluGlyPheSerPheGlnProLysLeuArgSerProArg 425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProProLeuLeuProProProProSerThrThr------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTGTACTTGAAAGTGTGAAAGAAAAGTTTTCTTTTGAACCAAAAATCCGATCGCCTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPheThrTyrValAlaPro
                                                                                                    MetAlaAlaValPheAspLeuAspLeuGluThrGluGluGlySerGluGly
                                                                                                                                                                                                                                                                    2.59e-165
1724.50
73.80%
64.76%
65.97%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -GlybheArgProSerProSerLeuProGlu---ProThrGluLeuProLeu
                                                                                                                                                                                                                             x US-10-425-114-26874 (1-2362)
                                                                                                                                                                                                                                                                                      Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                    2362
351
49
79
63
```

Ś 뮹 Ş 셠 S ДĎ Ś ₽ S 밁 δ 멼 Ś

186

550

166

490

146 430 126 370

D.

문 ð 문 á 문 ξ. Ď, 5 g 5 문 Ş д Ş

1030 346

> 9 86

**송** 암

207

267

φ,

86

S

Ş

159

S В 5 밁 Ś 밁

126 387 106 327

447

420

1466 440

485

470

```
CysLeuGlnSerGluGluAspValSerGlnPheAspThrArgPheThrArgGlnThrPro
                                                                                       PheArgHisMetAsnTrpAspAspLeuLeuAlaTrpArgValAspProProPheArgPro
                                                                                                                                                              ProSerGlnArgIleGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhe
                                                                                                                                                                                                                                   LeuProProTyrLeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsn
                                                                                                                                                                                                                                                                                  CCATTCACTGGGGAGAATAGAAAACAATTGACAAAATCCTCAAATGTAAACTCAAT 1046
                                                                                                                                                                                                                                                                                                            ProPheThrAlaGluAsnArqLysLysThrMetAspLysIleIleArgGlyLysLeuAla 300
                                                                                                                                                                                                                                                                                                                                                          CGTGCTGTGGATTGGTGGAGTTTGGGAGCATTAATGTATGACATGCTGACTGGAGCACCC
                                                                                                                                                                                                                                                                                                                                                                             ArgAlaValAspTrpTrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySerPro
                                                                                                                                                                                                                                                                                                                                                                                                                              ACATTTTGTGGAACAATAGAATACATGGCCCCTGAAATCTTGATGAGAAGTGGCCACAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                               ThrPheCysGlyThrIleGluTyrMetAlaProGluTleLeuValArgSerGlyHisAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GTGAAACTAACAGACTTTGGACTATGCAAAGAATCTATTCATGATGGAACAGTCACACAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IleLysLeuThrAspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThrAla---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GATTTAATTTATGCCTTTCAGACTGGTGGAAAACTCTACCTCATCCTTGAGTATCTCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIleLeuGluCysLeuSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLysHisProPheIleVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GGGAAAATATTTGCCATGAAGGTGCTTAAAAAGGCAATGATAGTAAGAAATGCTAAAGAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTTGGTAAAGGGGGCTATGGAAAGGTTTTTCAAGTACGAAAAGTAACAGGAGCAAATACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThrAsnLeu 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGGGAGTTGGACCATATGAACTTGGCATGGAACATTGTGAGAAATTTGAAATCTCAGAA
                                                                    TTTAGACACATTAACTGGGAAGAACTTCTGGCTCGAAAGGTGGAGCCCCCTTTAAACCT
                                                                                                                                          GCTGCTTCTCGTCTGGGAGCTGGTCCTGGGGAACGCTGAAGCTCAAGCTCATTCCATTC
                                                                                                                                                                                                                TIGOCTOCCTACCICACACAAGAAGCCAGAGATCIGCTTAAAAAAGCTGCTGAAAAGAAAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAlaLysAsp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AlaGlyLeuGluPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTGAGTGGAACGCTCTTCACACCAGTTGTTCCTAACAGAACCATTCTCATTGCGGCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACAGCTCATACAAAAGCAGAACGGAATATTCTGGAGGAAGTAAAGCATCCCTTCATCGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACTAGTGTGAACAGAGGGCCAGAAAAATCAGACCAGAATGTTTTGAGCTACTTCGGGTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ThrSerValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeuArgVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GAGGATGAGCTGGAG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -----ValGlyKisTyrGluUalGluLeuThrGlu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ----GAGGGGGTCAGTTAAATGAAAGCATGGACCAT
                                                                                                      360
 1286
                                                                                                                                                                                                              1106
                                  380
                                                                      1226
                                                                                                                                          1166
                                                                                                                                                                            340
                                                                                                                                                                                                                                                  320
                                                                                                                                                                                                                                                                                                                                                          986
                                                                                                                                                                                                                                                                                                                                                                                          280
                                                                                                                                                                                                                                                                                                                                                                                                                              926
                                                                                                                                                                                                                                                                                                                                                                                                                                                                260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    966
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              746
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  686
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      626
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  506
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           386
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     266
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           200
                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION NUMBER: US/09/925,298
CURRENT FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/US00/05881
PRIOR FILING DATE: 2000-03-08
PRIOR PELICATION NUMBER: 60/124,270
PRIOR PILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 846
SOFTWARE: PatentIN Ver. 2.0
SEQ ID NO 245
LENGTH: 1197
TYPE: DNA
ORGANISM: Homo sapiens
PEATURE:
NAME/KEY: misc feature
LOCATION: (218)
LOCATION: (218)
LOCATION: (1193)
LOCATION: (1193)
LOCATION: (1193)
LOCATION: (1193)
LOCATION: (1193)
                                                                                                                                                     Percent Similarity:
Best Local Similarity:
Query Match:
á
                                  딹
                                                                  á
                                                                                                    US-09-762-258-2 (1-495) x US-09-925-298-245 (1-1197)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 10
US-09-925-298-245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                Alignment Scores:
                                                                                                                                                                                                                                                                                  ; OTHER INFORMATION: US-09-925-298-245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    á
                                                                                                                                                                                                                Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 245, Application US/09925298
Publication No. US20020039764A1
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
FILE REFERENCE: PALO3
                                                                                                                                                                                                                                 No.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1287
204 IleTyrArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeu
                                                                      184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        381
                                  ш
                                AlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAACAA 1640
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SerLys 487
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ValAspSerProAspAspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ATGAGTGGGGAAGCATCGGCACCACTTCCAATACGACAGCCGAACTCTGGGCCCATACAAA 1634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SerPro-----PheGluGlyPheArgProSerProSerLeuProGluProThrGluLeu 458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATCCGATCACCTCGAAGATTTATTGGCAGCCCACGAACACCTGTCAGCCCAGTCAAATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LeuArgSerProArgArgLeuAsnSerSerProArgValProValSerProLeuLysPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ProLeuProProLeuLeuProProProProSer-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ThrTyrValAlaProSerValLeuAspSerIleLysGluGlyPheSerPheGlnProLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTCGACAGCCCAGATGACTCAACTCTCAGTGAAAGTGCCAATCAGGTCTTTCTGGGTTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTCCTGGGGATTTCTGGGGAAGAGGTGCTTCGGCCAGC---
                                                                                                                                                                                                                                                                                                   Þ
                                                                                                                                          1.01e-157
1646.00
98.72%
98.72%
62.97%
                                                                                                                                                                                                                                                                                                   equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ThrThrAlaProLeuProIleArgProPro---SerGlyThrLysLys
                                                                                                                                                                                                                                                                                                   a,t,
                                                                                                                                                         Conservative: Mismatches: Indels:
                                                                                                                                                                                                              Length:
Matches:
                                                                                                                                          1197
309
0
3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ----ACAGCAAAT 1514
```

δ 뮹 δ 9 S 망 Ş 밁

567

99 507 146

184

g

201 687

221 747

8 Ś 벍 δ Ď, 8 B Ş g Ş 밁 S 8 ð 뭠 S 뮍 Š

1227

223 72 1047 301 987 281 927

867 241 807

```
Sequence 245, Application US/10102806
Publication No. US20030054421A1
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins
FILE REFERENCE: PA103PICI
CURRENT APPLICATION NUMBER: US/10/102,806
CURRENT FILING DATE: 2002-03-22
PRIOR APPLICATION NUMBER: 09/925,298
PRIOR TILING DATE: 2001-03-10
PRIOR PILING DATE: 2001-03-10
PRIOR PILING DATE: 2001-03-08
PRIOR FILING DATE: 2001-03-08
                                                                                                                                                                    NESULT 11
US-10-102-806-245
                                                                                                                                                                                                                                                                                              463
                                                                                                                                                                                                                                                                                                                                                    443
                                                                                                                                                                                                                                                                                                                                                                                                                                       673
                                                                                                                                                                                                                                         483
                                                                                                                                                                                                                                                                     853
                                                                                                                                                                                                                                                                                                                          793
                                                                                                                                                                                                                                                                                                                                                                               733
                                                                                                                                                                                                                                                                                                                                                                                                         423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             613
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       493
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73
                                                                                                                                                                                                                                                                                                                         rProArgArgLeuAsnSerSerProArgValProValSerProLeuLysPheSerProPh
                                                                                                                                                                                                                CAAGAAGTCCAAGAGGGGCCCTGGGGCGTCCAGGGGCGC
                                                                                                                                                                                                                            rLysLysSerLysArgGlyArgGlyArgProGlyArg 495
                                                                                                                                                                                                                                                                                  uLeuProProProProProSerThrThrAlaProLeuProIleArgProProSerGlyTh
                                                                                                                                                                                                                                                                     CCTGCCACCGCCGCCCTCGACCACCGCCCCTCTCCCCATCCCCTCACCCCCTCAGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                    GGCCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rProAspAspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPheThrTyrVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 nSerGluGluAspValSerGlnPheAspThrArgPheThrArgGlnThrProValAspSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGAATTGGGACCTTCTGGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sMetAsnTrpAspAspLeuLeuAlaTrpArgValAspProProPheArgProCysLeuG1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GCGGATTGGGGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            nArgIleGlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ThrAspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                   |AlaProSerValLeuAspSerIleLysGluGlyPheSerPheGlnProLysLeuArgSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCCTGATGACACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCCTTCACATACGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  oTyrLeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rAlaGluAsnArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProPr 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyThrIleGluTyrMetAlaPro-GluIleLeuValArgSerGlyHisAsnArgAlaVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTACCTCACCCCAGATGCCCGGGACCTTGTCAAAAAGTTTCTGAAACGGAATCCCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCACCATTGAGTACATGGCCCCTGNAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Acids, Proteins
                                                                                                     and
                                                                                                      Antibodies
                                                                                                                                                                                                               949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       372
                                                                                                                                                                                                                                                                                              483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      403
                                                                                                                                                                                                                                                                     912
                                                                                                                                                                                                                                                                                                                          852
                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                               792
                                                                                                                                                                                                                                                                                                                                                                                                         443
                                                                                                                                                                                                                                                                                                                                                                                                                                     732
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       552
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               132
                                                                                                                        ð<u>,</u> 유
                 S
                                                                      Ś
                                             밁
                                                                                                   몂
                                                                                                                                                                              Ś
                                                                                                                                                                                                             B
                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                     片
                                                                                                                                                                                                                                                                                                                          맑
                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Percent Similarity:
Best Local Similarity:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US-09-762-258-2 (1-495) x US-10-102-806-245 (1-1197)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-10-102-806-245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: 60/124,270
PRIOR FILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 846
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 245
FENTY: 1167
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc_feature
LOCATION: (218)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OTHER INFORMATION: n equals NAME/KEY: misc feature LOCATION: (1193) OTHER INFORMATION: n equals
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LENGTH: 1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          No.:
                   403
                                                                        383
                                                                                                     553
                                                                                                                              363
                                                                                                                                                          493
                                                                                                                                                                                    343
                                                                                                                                                                                                                433
                                                                                                                                                                                                                                                                     373
                                                                                                                                                                                                                                                                                              303
                                                                                                                                                                                                                                                                                                                          313
                                                                                                                                                                                                                                         323
                                                                                                                                                                                                                                                                                                                                                    283
                                                                                                                                                                                                                                                                                                                                                                               253
                                                                                                                                                                                                                                                                                                                                                                                                                                     193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            133
                                                                                                                                                                                                                                                                                                                                                                                                         263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       184 AlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <u>1</u>3
  rProAspAspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPheThrTyrVa
                                                                                                                                                                                                                                                                    OTYrLeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsnProSerGl
                                                                                                                    nSerGluGluAspValSerGlnPheAspThrArgPheThrArgGlnThrProValAspSe
                                                                                                                                                                                                               GCGGATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCA
                                                                                                                                                                                                                                nargIleGlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhePheArgHi
                                                                                                                                                                                                                                                                                                                                                                               GTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAG
                                                                                                                                                           CATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCA
                                                                                                                                                                         sMetAsnTrpAspAspLeuieuAlaTrpArgValAspProProPheArgProCysLeuGl
                                                                                                                                                                                                                                                                                                                          CGCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCC
                                                                                                                                                                                                                                                                                                                                         rAlaGluAsnArgLysLysThrMetAspLysIleIleArgGlyLysLeuAlaLeuProPr
                                                                                                                                                                                                                                                                                                                                                                                                                                     GCACCATTGAGTACATGGCCCCTGNAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlyThrIleGluTyrMetAlaPro-GluIleLeuValArgSerGlyHisAsnArgAlaVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ThrAspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IleTyrArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHisIleLysLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCCTGCTTCTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCACTCCCAGGGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1.01e-157
1646.00
98.72%
98.72%
62.97%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a,t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a,t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ġ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length:
Matches:
Conservative:
Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ŕ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1197
309
0
3
                      423
                                                672
                                                                          403
                                                                                                      612
                                                                                                                               383
                                                                                                                                                                                      363
                                                                                                                                                                                                                492
                                                                                                                                                                                                                                           343
                                                                                                                                                                                                                                                                                              323
                                                                                                                                                                                                                                                                       432
                                                                                                                                                                                                                                                                                                                            372
                                                                                                                                                                                                                                                                                                                                                      303
                                                                                                                                                                                                                                                                                                                                                                                312
                                                                                                                                                                                                                                                                                                                                                                                                           283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 203
                                                                                                                                                                                                                                                                                                                                                                                                                                       252
```

S 묽 S 밁 S

맒 Ś 밁 밁 Ş 밁 5 문 S 맑 5 В Ş 양 5 문 Š 밁 Ő. 밁 Š 멍 Ş

```
8 8 8 B
밁
                               Ś
                                                                          g,
                                                                                                     S
                                                                                                                                            Ωb
                                                                                                                                                                                    S
                                                                                                                                                                                                                     뮹
                                                                                                                                                                                                                                                            Ϋ́
                                                                                                                                                                                                                                                                                                      음 성
                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 12
US-09-817-310-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    음 중
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Дò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-09-762-258-2 (1-495) x US-09-817-310-1 (1-2556)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US-09-817-310-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1, Application US/09817310
Patent NO. US20010042254A1
GENERAL INFORMATION:
APPLICANT: Stewart, Mary
APPLICANT: Kozma, Sarah
APPLICANT: Thomas, George
TITLE OF INVENTION: Drosophila Melanogaster
FILE REFERENCE: 4-20971/A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 1
LENGTH: 2556
TYPE: DNA
CRGANISM: Drosophila
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/817,310
CURRENT FILING DATE: 2001-03-26
PRIOR APPLICATION NUMBER: 09/230,247
PRIOR FILING DATE: 1999-04-16
NUMBER OF SEQ ID NOS: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     673
                                                                                                                                                                                                                                                                                                              531
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   443
                                       101
                                                                                                                                                         645
                                                                                                                                                                                                                                      591
                                                                                                                                                                                                                                                                                                                                                                                             471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              793
  765
                                                                                                                 81
                                                                                                                                                                                              5
                                                                                                                                                                                                                                                                         41
                                                                                                                                                                                                                                                                                                                                                   24
                                                                                                                                                                                                                                                                                                                                                                                                                                  ũ
                                                                                                                                                                                                                                                                                                                                                                                           GCAATGGCGGACGTGAGCGATCCCAGCGAACTGTTCGACCTGGAGCTGCACGACCTGGAA
                               GlnGlyThrAsnLeuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleVal
                                                                                                     GluLeuLeuArgValLeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysVal
                                                                                                                                                                                                                                                                                                              CTGCAGGACGACAAGGCCAGGGACTCCGACGACGACAGGATCGÁGCTGGACGACGTTGÁC
                                                                                                                                                                                                                                                                                                                                                     ThrGluGluGlySerGluGlyGluGlyGluPro-----
                                                                                                                                                           ATACAGCTCTGCGAGGAGTAATCCAGGTAAAATCAAGCTGGGACCCAAGGACTTT
                                                                                                                                                                                            ValGluLeuThrGluThrSerValAsnValGlyProGluArgIleGlyProHisCysPhe
                                                                                                                                                                                                                                      CTAGAACCG-----GAATTGTGTATTAATCTGCACCAAGACACTGAGGGCCAGGAGACC 644
                                                                                                                                                                                                                                                                       AlaCysProLeuAlaGluLeuArgAlaAlaGlyLeuGluProValGlyHisTyrGluGlu 60
                                                                                                                                                                                                                                                                                                                                                                                                                                  AlaMetAlaAlaVal----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rLysLysSerLysArgGlyArgGlyArgProGlyArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      uLeuProProProProProSerThrThrAlaProLeuProIleArgProProSerGlyTh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAGGGGTTTCGGCCCAGCCCCAGCCTGCCGGAGCCCACGGAGCTACCTCTACCTCCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     eGluGlyPheArgProSerProSerLeuProGluProThrGluLeuProLeuProLeuProLe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rProArgArgLeuAsnSerSerProArgValProValSerProLeuLysPheSerProPh
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTC
  GCTGGÁCGAGATGCTAACÁÁÁTATTTTGCCÁTGÁÁGGTGCTCAAAAÁGGCÁTCCÁTTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCTGCCACCGCCGCCCTCGACCACCGCCCTCTCCCCATCCGTCCCCCTCAGGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8.09e-138
1455.00
66.73%
57.12%
55.66%
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         melanogaster
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length:
Matches:
Conservative:
Mismatches:
Indels:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          P70 S6 Kinase
                                                                                                                                                                                                                                                                                                                                                                                                                              PheAspLeu---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2556
309
52
115
65
                                                                                                                                                                                                                                                                                                                                                     -GluLeuSerProAlaAsp
                                                                                                                                                                                                                                                                                                                                                                                                                  -----AspLeuGlu
                                       120
                                                                                                                                                                                                80
                                                                                                                                                                                                                                                                                                                                                     40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                443
                                                                                                                                                                                                                                                                                                                                                                                           530
                                                                                                                                                                                                                                                                                                                                                                                                                                  23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          792
                                                                                                                                                           704
                      몽
                                                       δ
                                                                                                 문
                                                                                                                                ð
                                                                                                                                                                           문
                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                               맑
                                                                                                                                                                                                                                                                                                                                                                                                                                               δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ğ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ъ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                1719
                                                                                                                                                                                                                                                                                                                                     1605
                                                                                                                                                                                                                                                                                                                                                                                                                  1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1065
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1005
                      1839 CGGGATGTTTGCACGAGCCACGCCGCCGCATCACATGCAGACATTTGCGCCGCGTCCATC
                                                                                                                                                                                                                                                          1665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1125 GTGAAGCTCACGGACTTTGGACTGTGCAAGGAGCACATACAAGAGGGTATTGTCACCCAC
                                                                                                                                          437
                                                                                                                                                                                                                                                                                             401
                                                                                                                                                                                                                                                                                                                                                                          381
                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   885
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GlnGlyIleIleTyrArgAspLeuLysProGluAsnIleMetLeuSerSerGlnGlyHis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GluAspThrAlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSer 200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ArgAsnAlaLysAspThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLys
                                                                                                                                                                              GCACGCTCCCCACGACGCCACGCCAGCTGCCGGACAGCAGCTTCCGCCTGCAGTTC 1778
                                                                                                                                                                                                                                                                                                                                                          ValAspSerProAspAspThrAlaLeuSerGluSerAlaAsnGlnAlaPheLeuGlyPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                      CysLeuGlnSerGluGluAspValSerGlnPheAspThrArgPheThrArgGlnThrPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGGATACCACATGCTTCTATCTAAGCGAAATCATTTTGGCCTTGGGCCATCTACACAAA 1064
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LeuArgSerProArgArg-LeuAsnSerSerProArgValProValSer------
                                                                                                                                                                                                                                                                                   ThrTyrValAlaProSerValLeuAspSerIleLysGluGlyPheSerPheGlnProLys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCAAACACGTCAACTGGGATGTGCTCGCCAGACGCCTCGAGCCGCCTATAAAACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PheArgHisMetAsnTrpAspAspLeuLeuAlaTrpArgValAspProProPheArgPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ProSerGlnArgIleGlyGlyGlyProGlyAspAlaAlaAspValGlnArgHisProPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuProProTyrLeuThrProAspAlaArgAspLeuValLysLysPheLeuLysArgAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProPheThrAlaGluAsnArgLysLysThrMetAspLysIleIleArgGlyLysLeuAla
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCTTCTGCGGCACAATTGAGTACATGGCACCTGAAATTTTGACCAGAAGTGGCCATGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrPheCysGlyThrIleGluTyrMetAlaProGluIleLeuValArgSerGlyHisAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CTTGAATATCTCAGCGGTGGAGAGCTGTTCATGCATTTGGAGCGTGAGGGCATCTTCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LeuGluCysLeuSerGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HisProPheIleValGluLeuAlaTyrAlaPheGlnThrGlyGlyLysLeuTyrLeuIle
                                                                                                                                                                                                                                                          ACCTACGTTGCACCCTCGATACTGGAGGATATGCATCGG------GCCAACCGGATGCCA
                                                                                                                                                                                                                                                                                                                                       GTGGATTCCCCTGATGATACAACGCTAAGCGAAAGTGCCAATTTAATTTTCCAAGGTTTC
                                                                                                                                                                                                                                                                                                                                                                                                                  CTCTTGAGAAGCGAGGATGATGTCTCACAGTTCGATACAAGATTCACAAGACAAATTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAACCTCAGOGCCTTGGCAGCGGACCCGAGGATGCGGCGGCTGTTCAAATACACCCATTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     criscoagecriacoreacaecegaascoasses de consecuences de la compansión de consecuencia de consecu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CCCTTCACCGCGAGAATCGCAAGAAGACCATCGAGACCATTCTGAAAGCCAAGCTCAAT 1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAGCAGTCGACTGGTCACTGGGCGCTCTCATGTTTGACATGCTCACAGGAGTCCCA
                                                                                                   CCATCGGCCAATGTGGGCCAATGCGCCTGCTGGCCATGCACGGTCATTCGCAGCGATC
                                                                                                                                        ProLeuLysPheSerProPheGluGlyPhe-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ArgProSe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1304
                                                                                                                                                                                                                                                              1718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1004
                          1898
                                                                                                       1838
                                                                                                                                                                                                                                                                                                                                                                                                                    1604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1184
                                                                  449
                                                                                                                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                                                         1664
                                                                                                                                                                                                                                                                                                                                                                              400
                                                                                                                                                                                                                                                                                                                                                                                                                                                           380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  140
                                                                                                                                              446
                                                                                                                                                                                                                         436
```

```
Percent Similarity:
Best Local Similarity:
Query Match:
DB:
                                                                                                              Š
                                                                                                                                           뜅
                                                                                                                                                                                                                                                                     Ś
             Ş
                                       밁
                                                              Ś
                                                                                                                                                               S
                                                                                                                                                                                            몽
                                                                                                                                                                                                                    Ś
                                                                                        片
                                                                                                                                                                                                                                               DЬ
                                                                                                                                                                                                                                                                                               US-09-762-258-2 (1-495) x US-09-968-433-58 (1-1058)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
US-09-968-433-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                   Alignment Scores:
                                                                                                                                                                                                                                                                                                                                                                                                                              US-09-968-433-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PERL Program
SEQ ID NO 58
LENGTH: 1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 58, Application US/09968433 Publication No. US20030073162A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Lal, Preeti
APPLICANT: Au-Young, Janice
APPLICANT: Reddy, Roopa
APPLICANT: Murry, Lynn E.
APPLICANT: Murry, Lynn E.
APPLICANT: Mathur, Preete
TITLE OF INVENTION: SIGNAL PEPTIDE-CONTAINING PROTEINS
FILE REFERENCE: PC-0051 CIP
CURRENT APPLICATION NUMBER: US/09/968,433
CURRENT APPLICATION NUMBER: US/09/968,433
CURRENT APPLICATION NUMBER: US/09/968,433
CURRENT FILING DATE: 2001-10-01
NUMBER OF SEQ ID NOS: 79
                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: misc_feat
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                         No ::
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2079 A 2079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       104
                                                                                                                                           168
                                                                                                                                                                                             108
                                                                                         228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     449
                                                                                                                 64
                                                                                                                                                                   44
                                                                                                                                                                                                                      24
                                                                                                                                                                                                                                              4
AsnLeuGlyLysIleTyrAlaMetLysValLeuArgLysAlaLysIleValArgAsnAla
                                                      ArgValLeuGlyLysGlyGlyTyrGlyLysValPheGlnValArgLysValGlnGlyThr
                                                                                                      ThrGluThrSerValAsnValGlyProGluArgIleGlyProHisCysPheGluLeuLeu
                                                                                                                                                           LeuAlaGluLeuArgAlaAlaGlyLeuGluProValGlyHisTyrGluGluValGluLeu
                                                                                                                                           CTTGGCGAATTAAGGGCTGCTGGCCTGGAAGACAGTGGGACACTATGAAGAAGTAGAGCTG
                                                                                                                                                                                            ACCGAGGAAGGGAGCGAGGGCGAAGCCGGAGTTCAGCCCTGCGGACGTGTGTCCC
                                                                                                                                                                                                                    ThrGluGluGlySerGluGlyGluGlyGluProGluLeuSerProAlaAspAlaCysPro
                                                                                                                                                                                                                                                            GlyArgArgAlaArgGlyAlaGlyAlaAlaMetAlaAlaValPheAspLeuAspLeuGlu
                                                                                         ACAGAGAGCAGCGTGAACCTGGGTCCTGAGCGCATCGGGCCCCACTGCTTTGAGCTACTG
                                                                                                                                                                                                                                              GGCCAAGGGTCCCGCGGGACCGGGGGGGGGCCATGGCGGCCGTATTTGATTTAGACTTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                oLeuLeuProProProProProSerThrThrAlaProLeuProIleArgPro-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTGCTTCCCAACCAACCAACCCATCCCATCCCGTCCGTTCCGTCGCAACCCAGCAACTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCGGCGCAGGACGAGATGATGGACGTGCAGGGTCTGCCGATGGTCTAAAAGGCTGGAGCG 1958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rProSerLeuProGluProThrGlu------LeuPro-----LeuProPr 462
                                                                                                                                                                                                                                                                                                                                                                                                                                         Incyte ID
                                                                                                                                                                                                                                                                                                                        2.1e-133
1406.50
85.21%
82.64%
53.81%
                                                                                                                                                                                                                                                                                                                                                                                                                                          No.
                                                                                                                                                                                                                                                                                                                                                                                                                                        US20030073162A1 037196_Mm.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ProSerGlyThrLysLysSerLysArgGlyArgGlyAr 492
                                                                                                                                                                                                                                                                                                                      Mismatches:
Indels:
Gaps:
                                                                                                                                                                                                                                                                                                                                                                         Length:
Matches:
                                                                                                                                                                                                                                                                                                                                                               Conservative:
                                                                                                                                                                                                                                                                                                                          12
24
24
              123
                                                              103
                                                                                        287
                                                                                                                                                                                                                                             107
                                                                                                                  83
                                                                                                                                           227
                                                                                                                                                                  63
                                                                                                                                                                                            167
                                                                                                                                                                                                                   43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 479
             ; LOCATION: (1) ...; OTHER INFORMATION: US-10-305-720-126
                                                                                                                                                                                                                                                                                                                     RESULT 14
US-10-305-720-126
                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밇
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                   NAME/KEY: unsure
                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                               947
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 887
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     767
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 224
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        647
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            588
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                46B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         124
```

```
SOFTWARE: PERL Program
SEQ ID NO 126
LENGTH: 1607
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 126, Application US/10305720 Publication No. US20040010136A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                    APPLICANT: AL-Young, Janice K.; Seilhamer, Jeffrey J.

TITLE OF INVENTION: Composition for the Detection of Signaling Pathway Gene Express
FILE REFERENCE: pA-0002-1 CON
CURRENT APPLICATION NUMBER: US/10/305,720
CURRENT FILING DATE: 2002-11-26
PRIOR APPLICATION NUMBER: 09/016,434
PRIOR APPLICATION NUMBER: 09/016,434
PRIOR PLING DATE: 1998-01-30
NUMBER OF SEQ ID NOS: 1490
                                                                    PEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incy
PEATURE:
                                                                                                                                                             ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              286 nArgLysLysThrWetAspLysIleIleArgGlyLysLeuAlaLeuProPro 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                164 LeuSerGlyGlyGluLeuPheThrHisLeuGluArgGluGlyIlePheLeuGluAspThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGAGGACCCCTAGGCTGCCCTCACCTTCTGCCTTCTCCAGCCGCCTTCACTGCAGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TTCCTTGGGCGCAGGGTGGTGTTGGGGAGATCCCTTCCAGATTGGGGCAGGACTGGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                lAspTrpTrpSerLeuGlyAlaLeuMetTyrAspMetLeuThrGlySer------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GGCACCATTGAGTACATGGCCCCAGAGATTTCTAGTGCGCACTGGTCACAACCGGGCAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GlyThrIleGluTyrMetAlaProGluIle-LeuValArgSerGlyHisAsnArgAlaVa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ThrAspPheGlyLeuCysLysGluSerIleHisGluGlyAlaValThrHisThrPheCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GCCTGCTTCTACCTGGCAGAGATCACACTAGCCCTGGGCCATCTCCATTCCCC-GGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHisLeuHisSerGlnGlyIle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTGTAGAACTGGCCTATGCTTTCCAGACAGGTGGCAAACTCTACCTCATCCTGGAGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IleValGluLeuAlaTyrAlaPheGlnThrGlyGlyEysLeuTyrLeuIleLeuGluCys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LysAspThrAlaHisThrArgAlaGluArgAsnIleLeuGluSerValLysHisProPhe 143
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGACTGGTGGAGCCTGGGGAGCCCTGATGTACGACATGCTCACTGGATCGGCAAGTCCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTCAGTGGTGGTGAGCTCTTCACACATCTTGAGCGAGAAGGCATCTTCCTGGAAGACACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAGGACACAGCCCATACCCGGGCTGAGAGGAACATTCTAGAATCTGTGAAGCATCCCTTC
(1607)
: a, t,
                                                                                     Incyte
ņ
                                                                                             ij
ā
                                                                                          No. US20040010136A1 1309709
    9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PropropheThrAlaGluAs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              946
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      886
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      407
```

336 nArgHisDroPhePheArgHisMetAsnTrpAspAspLeuLeuAlaT 	Qy 316 eLeuLysArgAsnProSerGlnArgIleGlyGlyGlyProGlyAspAl	Qy 296 gGlyLysLeuAlaLeuProProTyrLeuThrProAspAlaArgAspLeuValLysLysPh	Qy 276 uThrGlySerProProPheThrAlaGluAsnArgLysLysThrMetAspLysIleIleAr	Qy 260 nArgAlaValAspTrpTrpSerLeuGlyAlaLeuMetTyrAspMetLe	Qy 254	Qy 245 rIleGluTyrMetAlaProGluIle	Qy 229CysLysGluSerIleHisGluGjyAla-ValThrHisThrPheCysGlyTh	Qy 218 GlnGlyHisIleLysLeuThrAspPheGlyLeu	Qy 198 LeuHisSerGlnGlyIleIleTyrArgAspLeuLysProGluAsnIleMetLeuSerSer	Qy 178 IlePheLeuGluAspThrAlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGlyHis	Qy 158 TyrLeuIleLeuGluCysLeuSerGlyGlyGluLeuPheThrHisLeuGluArgGluGly	Qy 138 SerValLysHisProPheIleValGluLeuAlaTyxAlaPheGlnThrGlyGlyLysLeu	Qy 118 LysleValArgAsnAlaLysAspThrAlaHisThrArgAlaGluArgAsnIleLeuGlu :::::	Qy 106GlyLysTleTyrAlaMetLysValLeuArgLysAla :::       ::: ::::: Db 272 ATCACCAGCCAGGAGTACNCCGTCAANATCATTGNTTTTTTTTTT	Qy 86 LeuGlYLysGlYGlYTYrGlYLysValPheGlnValArgLysValGln       :::   Db 227 CTGGGGGAGGCGCTCATGCCCGAGTGCAGACCTGC	rs sape: .762-258-2 (1-495) x US-10-305-720-126 (1-1607)	Pred. No.: 5.13e-131 Length: 1607 Score: 1385.50 Matches: 285 Percent Similarity: 70.65% Conservative: 40 Best Local Similarity: 61.96% Mismatches: 69 Query Match: 53.00% Indels: 67	ent Scores:
	QY 137 GLUSERVALLYSHISPTOPHEILEVALGIULEUALATYRALAPHEGINTHYGJYGJYLYS 156	PLEUVALLYSELYSEH 316   OY	296 DB: 13 Gaps: 957 US-09-762-258-2 (1-495) x US-10-220-955-1 (1-843)	276 Score: Percen Best L	260 ÜS-10-220-955-1  837 Alignment Scores: 1.12e-113 Length:	253 ; SEQ ID NO 1 LENGTH: 843 777 ; TYPE: DNA CORGANISM: Homo sabiens	245 ; CURRENT ; CURRENT 717 ; NUMBER ( SOPTWARE)	APPLICANT TITLE OF 1 664 FILE REFER	217 APPLICAL 604 APPLICAL APPLICAL APPLICAL	AESULI 13 US-10-220-955-1	177 Db	157  Oy 45 rillieuroteurorroteureurerrotroterrorrotroserrintintalarsoteureuriorio (1987)	137 CY 436 FETCHENLYSFRESEFF CORREST FUNDAL	117 Db 1318 CTTCCAGCCCAAGCTGCGCTCAACAGTAGCCCCCGGGTCCCCGTCAG		1198	Oy 356 oProPheArgProCysiceGinSerGinSerAspYnIArgPheIn 376	

g

δ

8 Ş g Ş

```
Search completed: July Job time : 711 secs
                                                                397
                                                                                                                                                                                                                                                                                                                                                                                                         237 AlaValThrHisThrPheCysGlyThrIleGluTyrMetAlaProGluIleLeuValArg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                              858
                                                                                         778
                                                                                                              377
                                                                                                                                    718
                                                                                                                                                        357
                                                                                                                                                                                859
                                                                                                                                                                                                      337
                                                                                                                                                                                                                             601
                                                                                                                                                                                                                                               317
                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                              297
                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                          277
                                                                                                                                                                                                                                                                                                                                                                 421
                                                                                                                                                                                                                                                                                                                                                                                                                                                        301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    177
                                                                                                                                                                                                                                                                                                                                                                                     257
                                            7 PheLeu 398
                                                                                        ArgHisProPhePheArgHisMetAsnTrpAspAspLeuLeuAlaTrpArgValAspPro 356
                                                                                                                                                                                                                                                                      GlyLysLeuAlaLeuProProTyrLeuThrProAspAlaArgAspLeuValLysLysPhe 316
                                                                                                                                                                                                                                                                                                                                                             SerGlyHisAsnArgAlaValAspTrpTrpSerLeuGlyAlaLeuMetTyrAspMetLeu 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SerGlnGlyHisIleLysLeuThrAspPheGlyLeuCysLysGluSerIleHisGluGly 236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  HisLeuHisSerGlnGlyIleIleTyrArgAspLeuLysProGluAsnIleMetLeuSer 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GlyIlePheLeuGluAspThrAlaCysPheTyrLeuAlaGluIleThrLeuAlaLeuGly 196
                                                                                                                                                                                                                                                                                                                  ThrGlySerProProPheThrAlaGluAsnArgLysLysThrMetAspLysIleIleArg 296
                                                                                                                                                                                                                             CTGAAAAGAAATGCTGCTTCT---CTGGGAGCTGGTCCTGGGGGACGCTGGAGAAGTTCAA
                                                                                                                                                                                                                                        LeuLysArgAsnProSerGlnArgIleGlyGlyGlyProGlyAspAlaAlaAspValGln
           3, 2004, 13:52:59
                                                                                                                                                                                                                             657
                                                                                                                                                                                                                                                   336
                                                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                                                 256
```

Ś 멍 S 문 S 밁 S 밁 S 문 Š 문 S 밁 δ 밁 á

```
Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB
Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OM nucleic -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
                                                                                                                                                                                                                                                                                                                                                                 Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
 1706. 2
11158. 6
11104. 4
11104. 4
1104. 6
672. 8
628. 8
628. 8
628. 8
619. 8
619. 8
619. 8
619. 8
619. 8
                                                                                                                                                                                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   seg length: 0
seg length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        July 3, 2004, D9:58:27; Search time 842 Seconds (without alignments)
10404.704 Million cell updates/sec
                                                                                                                                                                                                                                                                          Query
Match Length
                                                                                                                                                                                                                                                                                                                                                                                                                                            10:
11:
12:
13:
13:
14:
15:
16:
18:
19:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-09-762-258-1
1816
   94
63.8
63.8
83.7
34.6
34.6
324.1
11.6
324.1
11.6
324.1
11.6
324.1
11.6
32.7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3163042 segs, 2412103800 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Published_Applications_NA:*

| (ggn2_6/ptcodata/2/pubpna/US07_PUBCOMB.seq:*
| (ggn2_6/ptcodata/2/pubpna/US06_NEW_PUB.seq:*
| (ggn2_6/ptcodata/2/pubpna/US06_NEW_PUB.seq:*
| (ggn2_6/ptcodata/2/pubpna/US06_PUBCOMB.seq:*
| (ggn2_6/ptcodata/2/pubpna/US06_PUBCOMB.seq:*
| (ggn2_6/ptcodata/2/pubpna/PCTUS_PUBCOMB.seq:*
| (ggn2_6/ptcodata/2/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                   /cgn2_6/ptodata/2/pubpna/US08_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US08_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09C_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US09_NEW_PUB.seq:*
/cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10A_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
/cgn2_6/ptodata/2/pubpna/US10C_PUBCOMB.seq:*
     1742
11197
11197
11637
11608
11800
22287
2346
2346
2346
                                                                                                                                                                                                                                                                            B
     13
13
14
15
                                                                               15
16
15
15
15
                                          3 US-10-425-114-11480

3 US-9-925-298-245

5 US-10-102-806-245

0 US-99-968-433-10

6 US-10-305-720-126

0 US-09-968-433-58

US-09-968-433-58

US-10-316-253-31

15 US-10-316-253-31

15 US-10-191-803-230

9 US-09-954-456-1137

10 US-09-954-456-1137

10 US-09-954-456-1137
                                                                                                                                                                                                                                                                            H
   US-10-388-360-321
US-10-305-720-118
US-10-425-114-26874
                                                                                                                                                                                                                                                                                                                                SUMMARIES
Sequence 18480, A
Sequence 245, App
Sequence 245, Appl
Sequence 10, Appl
Sequence 126, Appl
Sequence 31, Appl
Sequence 33, Appl
Sequence 33, Appl
Sequence 1337, App
Sequence 1137, App
Sequence 1137, App
Sequence 1137, App
Sequence 118, App
Sequence 118, App
Sequence 118, App
Sequence 118, App
                                                                                                                                                                                                                                                                            Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-425-114-18480

J. Sequence 18480, Application US/10425114

J. Publication No. US20040034888A1

J. GENERAL INFORMATION:

J. APPLICAMY: Liu, Jingdong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        O
```

<b>4</b>	44	43	42	41	40	39	μ 86	37	36	ÇÎ	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15
		a	259	259	259	6	6	260.8	6			262.2		293.2	297.2	297.2		331.2	332.4	334	337	337	371	392.6	398	418.8	418.8	455.6	•	514
14.0	14.0	4	14.3	4	4.	4.	4.		4.	4		14.4		16.1	16.4	16.4	ò		18.3			18.6			21,9				26.0	28.3
1599	1599	1254	2626	2626	1140	2610	2610	2610	2610	2184	2181	1854	2978	3120	3131	3131	594	413	3061	3206	5673	4098	673	479	535	445	445	843	491	2556
17	15	17	17	15	15	17	17	16	φ	15	15	15	10	15	13	13	L W	φ	φ	16	15	16	φ	10	10	10	10	13	10	ø
US-10-641-643-1004	US-10-324-985A-3	US-10-713-678-3	13-67	US-10-324-985A-1	US-10-324-985A-5	US-10-713-678-1	Ψ	US-10-388-263-329	US-09-970-000-3	US-10-072-036-138	-10-072-	US-10-198-846-9984	-09-955-999		US-10-172-118-972	342-887	US-10-240-315-2	US-09-880-107-181	US-09-880-107-2146	US-10-159-563-155	240-	US-10-108-260A-891	US-09-925-300-418	-09-918-995-	-09-968-	ö	US-09-960-706-276	-10-220-95	8-43	US-09-817-310-1
100	'n	ļω	Sequence 5, Appli	۳	5	e 1,	1206,	n w	Į	e	4	9	ф 4.	_	Sequence 972, App	9	9	181, App	2146,	155	120,	e 891	418,	29	e 59	16	27	۲	6	Sequence 1, Appli

# ALIGNMENTS

VENTION: Plants and VENTION: Plants and Constitution NUMBER: US/10 ING DATE: 2003-04-28 EQ ID NOS: 73128 480 ID NOS: 73128 480 ID NOS: 73128 Homo sapiens Homo sapiens Phomo Phomo Sapiens Phomo Pho	VENTION: Nucleic Acid VENTION: Plants and U VENTION: Plants and U NCE: 38-21 (53313) B LICATION NUMBER: US/10 ING DATE: 2003-04-28 EQ ID NOS: 73128 480 Homo sapiens Homo sapiens FRMATION: Clone ID: LIE 18480 194.0%; Sc imilarity 99.8%; Pr ; Conservative 0; GGCCGACGGGCCCGCGGGGCCC	Tabaska, Jack E Cao, Yongwei AVENTION: Nucleic Acid AVENTION: Plants and U RNCS: 38-21(53313) B FLICATION NUMBER: US/10 LING DATE: 2003-04-28 SEQ ID NOS: 73128 SEQ ID NOS: 73128 Homo sapiens Homo sapiens Homo sapiens Homo sapiens 18480 94.0%; Sc imilarity 99.8%; Pr 3; Conservative 0; GGCCGACGGGGCCCGCGGGGGCCC	APPLICANT: Chou, Yihua APPLICANT: Kovalic, David K. APPLICANT: Kovalic, David K. APPLICANT: Screen, Steven B APPLICANT: Screen, Steven B APPLICANT: Screen, Steven B APPLICANT: Tabaska, Jack B APPLICANT: Tabaska, Jack B APPLICANT: Tabaska, Jack B APPLICANT: Tabaska, Jack B APPLICANT: Cao, Yongwei TITLE OF INVENTION: Nucleic Acid Molecules and Other M TITLE OF INVENTION: Sucleic Acid Molecules and Other M TITLE OF INVENTION: Sucleic Acid Molecules and Other M TITLE OF INVENTION: Plants and Uses Thereof for Plant FILIE REFERENCE: 38-21 (53313)8 CURRENT FILING DATE: 2003-04-28 NUMBER OF SEQ ID NOS: 73128 CURRENT FILING DATE: 2003-04-28 NUMBER OF SEQ ID NOS: 73128 SEQ ID NO 18480 LENGTH: 1742 TYPE: DNA CORGANISM: Homo sapiens FEATURE: OTHER INFORMATION: Clone ID: LIB3081-101-B10_FLI US-10-425-114-18480 Query Match Query Match Query Matches 1708; Conservative 0; Mismatches 3; Inv Matches 1708; Conservative 0; Mismatches 3; Inv Matches 1708; Conservative 0; Mismatches 3; Inv	GECCGACCGGCCCGCCGGCCCGCCCACGCCCATTGGCCCCTTTGATTTGGATTTGGATTTGGAG 91 ACGGAGGAAGGAAGGCAGCGAGGGCGAGGGCAAGGCCAGAGCTCAGCCCCGCGGACGCATGTCCC 205 ACGGAGGAAGGAAGGCAGGGCAAGGGCAAGGCCAGAGCTCAGCCCCGCGGACGCATGTCCC 151
Plants and Uses Thereof for Flant Improvement (1(5313)B) NUMBER: US/10/425,114 2003-04-28 1 73128 1 73128 1 73128 1 73128 1 73128 2 0	Nucleic Acid Molecules and Other Molecules Associ Plants and Uses Thereof for Plant Improvement 1(5313)BB 128/10/425,114 2003-04-28 : 73128 : 73128 Clone ID: LIB3081-101-B10_FLI Clone ID: LIB3081-101-B10_FLI 94.0%; Score 1706.2; DB 13; Length 1742; 99.8%; Pred. No. 0;	Jack E gwei Nucleic Acid Molecules and Other Molecules Associ Plants and Uses Thereof for Plant Improvement 1(5313)B 1(53313)B 1203-04-28 2003-04-28 213128 2003-04-2	David K. Steven B Jack E Gyei Nucleic Acid Molecules and Other Molecules Assoc: Plants and Uses Thereof for Plant Improvement 1(5313)B NUMBER: US/10/425,114 2003-04-28 : 73128 clone ID: LIB3081-101-B10_FLI Clone ID: LIB3081-101-B10_FLI 94.0%; Score 1706.2; DB 13; Length i742; 99.8%; Pred. No. 0;	AG 91
TIPLE OF INVENTION: Plants and USES Thereof for Flant Improvement TIPLE REFERENCE; 38-21(53313)B URRENT APPLICATION NUMBER: US/10/425,114 URRENT FILING DATE: 2003-04-28 UMBER OF SEQ ID NOS: 73128 Q ID NO 18480 LENGTH: 1742 TYPE: DNA ORGANISM: Homo sapiens FEATURE: FEATURE: OTHER INFORMATION: Clone ID: LIB3081-101-B10_FLI O-425-114-18480	N: Nucleic Acid Molecules and Other Molecules Associ N: Plants and Uses Thereof for Plant Improvement 3-21(531318) N: NUMBER: US/10/425,114 TB: 2003-04-28 WOS: 73128 19iens N: Clone ID: LIB3081-101-B10_FLI	<pre>(a, Jack E) fongwei vi Nucleic Acid Molecules and Other Molecules Associ vi Plants and Uses Thereof for Plant Improvement a-21(53313)B vi Nuthber: US/10/425,114 VI NUTHBER: US/10/425,114 VIE: 2003-04-28 VOS: 73128 quickless</pre>	yihua ic, David K.  1, Steven B (a, Jack B (congwei) vinucleic Acid Molecules and Other Molecules Assoc: v: Nucleic Acid Molecules and Other Improvement v: Plants and Uses Thereof for Plant Improvement v: Plants US/10/425,114 FB: 2003-04-28 vOS: 73128  1piens vos: 73128	+ <del>}</del>
ON: Plants and Uses Thereof for Flanc Improvement 38-21(53113)B TON NUMBER: US/10/425,114 ATE: 2003-04-28 NOS: 73128	ON: Nucleic Acid Molecules and Other Molecules Associ ON: Plants and Uses Thereof for Plant Improvement 38-21(53113)B TON NUMBER: US/10/425,114 ATE: 2003-04-28 NOS: 73128	ska, Jack E Yongwei ON: Nucleic Acid Molecules and Other Molecules Associ ON: Plants and Uses Thereof for Plant Improvement 38-21(53113)B TON NUMBER: US/10/425,114 ATE: 2003-04-28 NOS: 73128	Lic, David K. Lic, David K. sen, Steven B ska, Jack B Yongwei ON: Nucleic Acid Molecules and Other Molecules Associ ON: Plants and Uses Thereof for Plant Improvement 38-21(5313)B TON NUMBER: US/10/425,114 ATE: 2003-04-28 NOS: 73128	
ILON: PLANTS AND USES INSTEOD FOR PLANT IMPROVEMENT : 38-21(53131)8 ATTON NUMBER: US/10/425,114 DATE: 2003-04-28 ID NOS: 73128	TION: Nucleic Acid Molecules and Other Molecules AssociTION: Plants and Uses Thereof for Plant Improvement 19-21(53313)B 19-21(5	DATE: 2003-04-28 ID NOS: 73128	ou, Yihua valic, David K. valic, David K. reen, Steven E baska, Jack E o, Yongwei TION: Nuclecic Acid Molecules and Other Molecules Assoc: TION: Plants and Uses Thereof for Plant Improvement : 38-21(53313)B : 38-21(53313)B DATE: 2003-04-28 ID NOS: 73128	
NION: Flants and USES Thereof for Flant Improvement E: 38-21(53313)B CATION NUMBER: US/10/425,114 G DATE: 2003-04-28 ID NOS: 73128	NTION: Nucleic Acid Molecules and Other Molecules Associ NTION: Plants and Uses Thereof for Plant Improvement 8: 38-21(53313)B CATION NUMBER: US/10/425,114 G DATE: 2003-04-28 ID NOS: 73128	anaska, Jack E anabaska, Jack E anabaska, Vongwei NTION: Nucleic Acid Molecules and Other Molecules Associ NTION: Plants and Uses Thereof for Plant Improvement E: 38-21(53313)B E: 38-21(53313)B CATION NUMBER: US/10/425,114 G DATE: 2003-04-28 ID NOS: 73128	hou, Yihua ovalic, Navid K. creen, Steven E abaska, Jack E abaska, Jack E an, Yongwei NTION: Nucleic Acid Molecules and Other Molecules Assoc: NTION: Plants and Uses Thereof for Plant Improvement E: 38-21(53313)B E: 38-21(53313)B GID NOS: 73128	
TITIES OF INVENTION: FIBRES and USES Thereof for Fibres improvement PILE REFERENCE: 38-21(53313)B CURRENT APPLICATION NUMBER: US/10/425,114	ENTION: Nucleic Acid Molecules and Other Molecules Associ ENTION: Plants and Uses Thereof for Plant Improvement US: 38-21(53313)B ICATION NUMBER: US/10/425,114	Rabaska, Jack E Rabaska, Jack E Rabaska, Vengwei RATION: Nucleic Acid Molecules and Other Molecules Associ RATION: Plants and Uses Thereof for Plant Improvement RES: 38-21(53313)B RESET OF NUMBER: US/10/425,114	Zhou, Yihua Govalic, David K. Govalic, David K. Govalic, David K. Fabaska, Jack E Fabaska, Jack E SMTION: Nucleic Acid Molecules and Other Molecules Assoc: SMTION: Plants and Uses Thereof for Plant Improvement DE: 38-21(53313)B JCATION NUMBER: US/10/425,114	
ENTION: Plants and Uses Thereof for Flant improvement CE: 38-21(53313)B	TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules AssociTITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement FILE REFERENCE: 38-21(53313)B	Tabaska, Jack E Cao, Yongwei ENTION: Nucleic Acid Molecules and Other Molecules Associ ENTION: Plants and Uses Thereof for Plant Improvement CE: 38-21(53313)B	Zhou, Yihua Kovalic, David K. Screen, Steven B Screen, Jack B Tabaska, Jack B Cao, Yongwei Cao, Yongwei Can Nucleic Acid Molecules and Other Molecules Associ TRYTION: Plants and Uses Thereof for Plant Improvement ICE: 38-21(53313)B	
	TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With	Tabaska, Jack E Cao, Yongwei CEAO, Yongwei C	Zhou, Yihua Kovalic, David K. Screen, Steven B Tabaska, Jack B Cao, Yongwei Cao, Yongwei Cao, Yongwei Cao, Yongwei Cao, Yongwei	
Screen, Steven B Tabaska, Jack E Cao Vongwei	Screen, Steven B		Zhou, Yihua	
Kovalic, David K. Screen, Steven B Tabaska, Jack B Cao Vongwei	Kovalic, David K. Screen, Steven E	Kovalic, David K.		

유 &

유 성

-	1286 GCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTCA 1345
Dy 6	172 CCTGATGACACAGCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATACGTG
99	1 6
7 !	1106 ATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTGCAG 1165
; FEATURE ; NAME/KE ; LOCATIO ; OTHER I	1046 CGGATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCAC 1105
က္	986 TACCTCACCCCAGATGCCCGGGACCTTGTCAAAAGTTTCTGAAACGGAATCCCAGCCAG
PRIOR AND PRIOR FINANCE CONTRACT	926 GCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCC 985 
CURRENT CURRENT FIOR AF	866 GACTGGTGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACC 925 [
GENERAL I APPLICAN TITLE OF	806 GGCACCATTGAGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTG 865
RESULT 2 US-09-925-2 ; Sequence ; Publicati	746 ACCGACTTTGGACTCTGCAAGGAGTCTATCCATGAGGGCGCCGTCACTCAC
ا سو	686 ATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTG 745
Db 16	626 GOOTGOTTOTACCTGGOTGAGATCACGCTGGCCCTGGGCCATCTCCACTCCCAGGCCATC 6BS
рь 15 Qy 17	12 CTCAGTGGTGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACG 5
рь 15 Оу 16	452 ATTGTGGAACTGTTCAGGATTGGAGGGGAAACTGTACTCATCCTTGAGTGC 511
Фу 15	06 AFTGTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGC
Db 14	446 AAGGACACAGCACACACGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTT 505
نيو در	386 MACTIGGCCAAAATAXATIGCCATGAAAGTICTTAAGGAAGGCCAAAATTIGTGCGCAATGCC 445
Db 13	
0у 14	6 CGTGTGCTGGGCAAGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACC
	266 ACTGAGACCAGCGTGAACGCTGGCCCAGAGGCCACTACGGGCCCACTGCTTTGAGCTGCTG 325
Qy 13	152 CTTGCCGAGTTGAGGGCAGCTGGCCTAGAGCCTGTGGGACACTATGAAGAGGTGGAGCTG 211
Db 12	06 CTTGCCGAGTTGAGGGCAGCTGGCCTAGAGCCTGTGGGACACTATGAAGAGGTGGAGCTG

S

유 성

**중 음 중** 

S

음 중

밁

음 성 음 성

유 상 음 상 음

밁

 8 8 8 8 8 8

```
N25-298-245
Ince 245, Application US/09925298
Location No. US20020039764A1

VAL INFORMATION:
LE OF INVENTION:
LE DE INVENTION: Nucleic Acids, Proteins and REPERENCE: PA103
REPERENCE: PA103
RENT APPLICATION NUMBER: US/09/925,298
LENT APPLICATION NUMBER: PCT/US00/05881
R. FILING DATE: 2001-08-10
R. FILING DATE: 2000-03-08
R. FILING DATE: 2000-03-08
R. FILING DATE: 1999-03-12
R. FILING DATE: 1999-03-12
USCHILLING DATE: 19
                                                                                  datch 99.50 ocal Similarity 99.50 ocal Similarity
                                                                                                                                                                                                                                                                           /KEY: misc_feature
TION: (218)
R INFORMATION: n equals a
/KEY: misc_feature
TION: (1193)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1346
                                                       624
                                                                                                                                                                                                                            INFORMATION: n equals a,t,g, or
298-245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            712
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             766
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     652
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       706
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      472
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                412
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   232
     11
CGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCACTCCCAGGGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAGAAGTCCAAGAGGGGCCGTGGGCGTCCAGGGCGCTAGGAAGCCGGGTGGGGGTGAGGG 1585
                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCCGTGGAAGATTAAAGGGCTGAATCATG 1742
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTCCCGTGGAAGATTAAAGGGCTGAATCATG 1796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GACCTGGGGTGTGTCTGGGGGGTGGGGTGTGAGTGCGTATGAAAGTGTGTCTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAGCCCTTGAGCCCTGTCCCTGCGGCTGTGAGAGCAGCAGGACCCTGGGCCAGTTCCAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTGCCACCGCCGCCCCCCACCACCACCCCCTCTCCCCATCCGTCCCCCTCAGGGACC 1525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGGGTTTCGGCCCAGCCCCAGCCTGCCGGAGCCCACGGAGCTACCTCTACCTCCACTC 1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGGGGTTTCGGCCCAGCCCCAGCCTGCCGGAGCCCACGGAGCTACCTCTACCTCCACTC 1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCGCCGTCTGCCTGGACAGCATCAAGGAGGCTTCTCCTTCCAGCCCAAGCTGCGCTCA
                                                                                                                                          63.8%;
                                                                                                                                                                                                                                                                                                                                   a, t, g,
                                                                                                            Score 1158.6; DB 13;
Pred. No. 6.6e-302;
3; Mismatches 3; I
                                                                                                                                                                                                                                                                                                                                      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and Antibodies
                                                                                                                  Indels
                                                                                                                                                                       Length
                                                                                                                  Ŋ
                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1351
                                                       683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1705
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1591
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1405
           70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1291
                                                                                                                  N
```

```
GGGTAGCCCTTGAGGCCCTGTCCCTGCGGCTGTGAGAGCAGCAGGACCCTGGGCCAGTTCC
                                                                                                                                                                                                                              ACCAAGAAGTCCAAGAGGGGCCGTGGGCGTCCAGGGCGCTAGGAAGCCGGGTGGGGGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                           TCACCCAGGCGCCTCAACAGTAGCCCCCGGGGTCCCCGTCAGCCCCCTCAAGTTCTCCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCCTTCCAGCCCAAGCTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATAC
                               GGGGCAGCTGTGCCCCTGAATCATGGGCACGGA-GGCCGCCCGCCCRMGCCCCGCGCTCAA
                                                                                          GTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCCTGATGACACAGCCCTCAGCGAGGGTGCCAACCAGGCCTTCCTGGGCTTCACATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACATGAATTGGGACGTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTG
                                                                                                                                                                                                            ACCAAGAAGTCCAAGAGGGGCCGTGGGGCGTCCAGGGGCGCTAGGAAGCCGGGTGGGGGGTGA
                                                                                                                                                                                                                                                                         CTCCTGCCACCGCCGCCGCCTCGACCACCGCCCCTCTCCCCATCCGTCCCCCCTCAGGG
                                                                                                                                                                                                                                                                                                                                                               TTTGAGGGGTTTCGGCCCAGCCCCAGCCTGCCGGAGCCCACGGAGCCTACCTCCCA
                                                                                                                                                                                                                                                                                                                                                                                           TCACCCAGGCGCCTCAACAGTAGCCCCCGGGCCCCCGTCAGCCCCCTCAAGTTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCTTTCAGGCCCTGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CAGCGGATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CAGCGGATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAAAGTTTCTGAAAAGGGAATCCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAAAGTTTCTGAAACGGAATCCCAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCGCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GTGGACTGGTGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCGGCACCATTGAGTACATGGCCCCTG-AGATTCTGGTGCGCAGTGGCCACAACCGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GTGGACTGGTGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAAC 130
                                                                                                                     1702
                               1149
                                                                                                                                                  1030
                                                                                                                                                                                1642
                                                                                                                                                                                                                                                                                                    1522
                                                                                                                                                                                                                                                                                                                                                             1462
                                                                                                                                                                                                                                                                                                                                                                                                                        1402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       430
                                                                                                                                                                                                            970
                                                                                                                                                                                                                                                                       910
                                                                                                                                                                                                                                                                                                                                  850
                                                                                                                                                                                                                                                                                                                                                                                                                                                      730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   550
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              490
                                                                                                                                                                                                                                                                                                                                                                                           790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               982
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      250
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             803
               S
                                            片
                                                                       5
                                                                                                        밁
                                                                                                                               Ś
                                                                                                                                                     ČB
                                                                                                                                                                                         В
                                                                                                                                                                                                                         Ŗ
                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                             끊
                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; SEQ ID NO 245
; LENGTH: 1197
; TYPE: DNA
; TYPE: DNA
; ORGANISM: Homo sapiens
; PEATURE:
; NAME/KEY: misc_feature
; LOCATION: (218)
; OTHER INFORMATION: n equals a
; NAME/KEY: misc_feature
; LOCATION: (1193)
; OTHER INFORMATION: n equals a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-102-806-245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/102,806
CURRENT FILING DATE: 2002-03-22
PRIOR APPLICATION NUMBER: 09/925,298
PRIOR FILING DATE: 2001-08-10
PRIOR FILING DATE: 2001-08-01
PRIOR FILING DATE: 2001-09-01
PRIOR PRILING DATE: 2000-03-08
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR PRILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 846
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 3
US-10-102-806-245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        맒
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 1180;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 245, A Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins
FILE REFERENCE: PA103P1C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                 1103
                                                                         1043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1150
                                                                                                       371
                                                                                                                                                                311
                                                                                                                                   983
                                                                                                                                                                                             923
                                                                                                                                                                                                                           251
                                                                                                                                                                                                                                                       863
                                                                                                                                                                                                                                                                                      191
                                                                                                                                                                                                                                                                                                                 804
                                                                                                                                                                                                                                                                                                                                               131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 684
                                                                                                                                                                                                                                                                                                                                                                                                        71
                                                                                                                                                                                                                                                                                                                                                                                                        TCATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACGTCAAAC
CACATGAATTGGGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCTG
                                            CAGCGGATTGGGGTGGCCCAGGGGATGCTGCTGATGTCCAGAACATCCCTTTTTCCGG
                                                                                                                       CCCTACCTCACCCCAGATGCCCCGGGACCTTGTCAAAAAGTTTTCTGAAAACGGAATCCCAGC
                                                                                                                                                                                                                         GTGGACTGGTGGAGCCTGGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTT
                                                                                                                                                                                                                                                                                  ACCGCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCC
                                                                                                                                                                                 ACCGCAGAGAACCGGAAGAAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCC
                                                                                                                                                                                                                                                                                                                                               Application US/10102806
o. US20030054421A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a,t,g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a,t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1158.6; DB 1
Pred. No. 6.6e-302;
3; Mismatches 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ω
--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ٠.
در
                                                                          1102
                                                                                                                                     1042
                                              490
                                                                                                                                                                  370
                                                                                                                                                                                                                           310
                                                                                                                                                                                                                                                       922
                                                                                                                                                                                                                                                                                                                 862
                                                                                                                                                                                                                                                                                                                                               190
                                                                                                                                                                                                                                                                                      250
                                                                                                                                                                                                                                                                                                                                                                             803
                                                                                                                                                                                                                                                                                                                                                                                                        130
                                                                                                                                                                                                                                                                                                                                                                                                                                      743
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   70
```

유 성

1163

551

1343

731

1283

611

671

1223

1463

851

1403

791

유

1103

491

8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

431

1043

371

311 983 744 131 804 804 191 1863 863 251

Ś 밁 S 片 ঠ B \$ B Ś 밁 S 얽 Ş 밁 S 片 S 멍 S

> 1643 1031

971

œ

```
APPLICANT: Lal, Preeti
APPLICANT: Au-Young, Janice
APPLICANT: Reddy, Roopa
APPLICANT: Reddy, Roopa
APPLICANT: Mathur, Preete
TITLE OF INVENTION: SIGNAL PEPTIDE-CONTAINING PROTEINS
FILS REFERENCE: PC-0051 CIP
CURRENT APPLICATION NUMBER: US/09/968,433
CURRENT FILING DATE: 2001-10-01
NUMBER OF SEQ ID NOS: 79
SOFTWARE: PERL PROGRAM
SEQ ID NO 10
LENGTH: 1637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                      . . . . . . . . . . . . . .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ર્ક
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  덩
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 4
US-09-968-433-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Дb
                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 10, Application US/09968433 Publication No. US20030073162AI GENERAL INFORMATION:
TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incyte ID No. US20030073162A1 1869688
NAME/KEY: unsure
LOCATION: 3, 13, 22, 44, 69, 162, 1220, 1426, 1443, 1458, 1465, 1486, 1488, LOCATION: 1517, 1522, 1524-1525, 1533, 1553, 1573, 1584, 1605, 1624, 1631, 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1091
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGTAGCCCTTGAGCCCTGTCCCTGCGGCTGTGAGAGCAGCAGGACCCTGGGCCAGTTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGGTAGCCCTTGAGCCCTGTCCCTGCGGCTGTGAGAGCAGCAGGACCCTGGGCCAGTTCC 1642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCAAGAAGTCCAAGAGGGGCCGTGGGCGTCCAGGGGCGCTAGGAAGCCGGGTGGGGGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTCCTGCCACCGCCGCCCCTCGACCACCGCCCCTCTCCCCATCCGTCCCCCCTCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTCCTGCCACCGCCGCCCCTCGACCACCGCCCTCTCCCCATCCGTCCCCCCTCAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTGAGGGGTTTCGGCCCAGCCCCAGCCTGCCGGAGCCCACGGAGCTACCTCTACCTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCACCCAGGCGCCTCAACAGTAGCCCCCGGGTCCCCGTCAGCCCCCTCAAGTTCTCCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCTTTCAGGCCCTGTCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1702
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1030
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                970
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         910
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             790
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  670
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     730
          , 1490,
1634-1635
                                                                                                                                                                     ∂ B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B
                                                                                                                                     문
                                                                                                                                                                                                                                            S
                        Ş
                                                                                      S
                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                     Ş
                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                            맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; OTHER INFORMATION: US-09-968-433-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
Matches 1196; Conserv
                          1056
                                                                                                                                     1016
                                                                                                 996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             517
                                                                                                                                                                           936
                                                                                                                                                                                                              956
                                                                                                                                                                                                                                                  876
                                                                                                                                                                                                                                                                                         896
                                                                                                                                                                                                                                                                                                                             816
                                                                                                                                                                                                                                                                                                                                                                   836
                                                                                                                                                                                                                                                                                                                                                                                                                                            776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     716
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        596
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     236
                                                                                                                                                                                                                                                                                                                                                                                                      756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  97
                                                                                                                                     AATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATGCCAAGGACACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTTCCGGCACATGAATTGGG
                                                              GCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTCACCGCAGAGAACC
                                                                                                                                                                                                                                  GCCTGGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACCGCAGAGAAACC
                                                                                                                                                                                                                                                                                             AGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGA
                                                                                                                                                                                                                                                                                                                 AGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                        ACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACCGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACCGACTTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCCACGCGCCATCATCTACCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCACTCCCAGGGCCATCATCATCTACCGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGGATTGCCTCAGTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTT-GAGTGCCTCAGTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CAAGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGTGTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CGTGAACGTT9GCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGTGTGCTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PORASOS DE SOS DE LA CONTROL DEL CONTROL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ů
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Score 1104.4; pred. No. 2.9e 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ů
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1;
1.9e-287;
7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 10; Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       8
```

635

475 535 516 595 575

715 695

775 755 396

995

835 845 895 895 895 935

```
RESULT 5
US-10-305-720-126
US-10-305-720-126
Sequence 126, Application US/10305720
Publication No. US20040010136A1
GENERAL INFORMATION:
APPLICANT: AL-YOUNG, Janice K.; Seilhamer, Jeffrey J.
TITLE OF INVENTION: Composition for the Detection of S
FILE REFERENCE: PA-002-1 CON
CURRENT APPLICATION NUMBER: US/10/305,720
CURRENT FILING DATE: 2002-11-26
PRIOR APPLICATION NUMBER: 09/016,434
PRIOR PILING DATE: 1998-01-30
NUMBER OF SEQ ID NO 126
SOFTWARE: PERL PROGram
SEQ ID NO 126
LENGTH: 1607
   밁
                            S
                                                                닭
                                                                                          ફ
                                                                                                                            B
                                                                                                                                                          Ś
                                                                                                                                                                                                                        Ş
                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                         吊
                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                       8
                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY: unsure
LOCATION: (1) ... (
OTHER INFORMATION:
US-10-305-720-126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: misc feature
OTHER INFORMATION: Incyl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE
                                                                                                                                                                                                                                                                                                                                                                                      Local Similarity
es 734; Conserv
   1168
                                                                1108
                                                                                               1114
                                                                                                                               1048
                                                                                                                                                              1054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1254
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1116
                                                                                                                                                                                            988
                                                                                                                                                                                                                           994
                                                                                                                                                                                                                                                           928
                                                                                                                                                                                                                                                                                                                         898
                                                                                                                                                                                                                                                                                        934
                                                                                                                                                                                                                                                                                                                                                         874
                                                                                                                                                                                                                                                                                                                                     GAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCCCCTTTACCGCAGAGAA
                      GGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGACAGTCCTGATGA 1233
                                                                                                                                                                                                             GGACGTGAGCCAGTTTGATACCCGCTTCACACGCCAGACGCCGGTGGACAGTCCTGATGA
                                                                                                                                                GGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCCGGCACATGAATTG
                                                                                                                                                                                                                                                          CCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTNCCCCCCTACCTCAC
                                                                                                                                                                                                                                                                                                                       GCGGCTGGGACCGCTGATGTACGACATGCTCACTGGATCGCCGCCCTTTACCGCAGAGAA
                                                                    GGACGACCTT
                                                                                             GGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCCTGTCTGCAGTCAGAGGA 1173
                                                                                                                             GGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTG
                                                                                                                                                                                           CCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCCCCCTACCTCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GTCCTGGACAG 1380
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACAG-CCTCAGCGAGAGTGCCAACAAGGCCTTCCTGGGGTT-ACATAAGTGGCGC-GTCT 1369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATACGTGGCGCCGTCT 1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GACGTGAG-CAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACGACCTTCTGGCCTGGCGTGTGGGACCCCCCTTTC-AGGCCCTGTCTGCAGGTCAGAGGAG 1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCGGCACATGAATTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GTCCTGGACAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GACGIGAGCCAGITIGATACCCGCTTCACACGCGCAGACGCCGGTGGACAGTCCTGATGAC 1234
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACGA-CTTCTGGCCTGGCGTGTGGANCCCCCTTTCAAGGCCCTGTCTGCAGTCAGAGGA- 1253
                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (1607)
I: a, t,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Incyte
                                                                                                                                                                                                                                                                                                                                                                                                     39.6%;
99.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1305
                                                                                                                                                                                                                                                                                                                                                                                                                                                              c,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ħ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   á
                                                                                                                                                                                                                                                                                                                                                                                      ..
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   No.
                                                                                                                                                                                                                                                                                                                                                                                                    Score 720; DB 16;
Pred. No. 1.1e-183;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ř
                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US20040010136A1 1309709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CACACGGCAGACGCCGGTGGACAGTCCTGATGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            / J.
of Signaling Pathway Gene Expressi
                                                                                                                                                                                                                                                                                                                                                                                                                     Length 1607;
                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                      1
7:
   1227
                                                                1167
                                                                                                                             1107
                                                                                                                                                          1113
                                                                                                                                                                                           1047
                                                                                                                                                                                                                         1053
                                                                                                                                                                                                                                                          987
                                                                                                                                                                                                                                                                                        993
                                                                                                                                                                                                                                                                                                                         927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1195
                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Lal, Preeti
APPLICANT: Au-Young, Janice
APPLICANT: Reddy, Roopa
APPLICANT: Reddy, Roopa
APPLICANT: Mathur, Preete
FITTLE OF INVENTION: SIGNAL PEPTIDE-CONTAINING PROTEINS
FILE REFERENCE: PC-0051 CIP
CURRENT APPLICATION NUMBER: US/09/968,433
CURRENT FILING DATE: 2001-10-01
NUMBER OF SEG ID NOS: 79
SOPTWARE: PERL Program
SEG ID NO 58
LENGTH: 1058
                                                                                                                                        8
                 S
                                               片
                                                                         Ś
                                                                                                            밁
                                                                                                                                                                                                                                                                                                    ; TYPE: DNA
; ORGANISM: Mus musculus
; FEATURE:
; NAME KEY: misc feature
; OTHER INFORMATION: Incyte ID No. US20030073162A1 037196_Mm.1
US-09-968-433-58
                                                                                                                                                                           분
                                                                                                                                                                                                     5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 6
US-09-968-433-58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      끊
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                붛
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                       Query Match
Best Local Similarity
Matches 745; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 58, App
Publication No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1468
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1348
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1288
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1234
                  266
                                                 168
                                                                                                              108
                                                                                                                                                                           8
                                                                                                                                                                                                        86 GGCCGACGGGCCGCGGGGGCGGCCGCCATGGCGGCCGTGTTTGGATTTGGATTTGGAG
ACTGAGACCAGCGTGAAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTG
                                                                                                              ACCGAGGAAGGGAGCGAAGGGCGAACCGGAGTTCAGCCCTGCGGACGTCTGTCCCC
                                                                                                                                             ACGGAGGAAGGCAGCGAGGCGAGGCGAGCCAGAGCTCAGCCCCGGGGACGCATGTCCC
                                                 CTTGGCGAATTAAGGGCTGCTGGCCTGGAGACAGTGGGACACTATGAAGAAGTAGAGCTG
                                                                  CTTGCCGAGTTGAGGGCAGCTGGCCTAGAGCCTGTGGGACACTATGAAGAGGTGGAGCTG
                                                                                                                                                                             GGCCAAGGGTCCCGCGGGACCGGGGGGGGCCATGGCGGCCGTATTTGATTTAGACTTGGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGCCCTGTCCCTGCGGCTGT 1614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CAAGAGGGGCCGTGGGCGTCCAGGGCGCTAGGAAGCCGGGTGGGGGGTGAGGGTAGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTCAACAGTAGCCCCCGGGGTCCCCGTCAAGCTCCTCCTTTTGAGGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGGCCCAAGCTGCGCTCACCCAGGCG 1353
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACATACGTGGGGCCCGTC 1293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAAGAGGGCCGTGGGCGTCCAGGGCG-TAGGAAGCCGGGTGGGGGTGAGGGGTAGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCCGCCGCCCTCGACCACCGCCCCTCTCCCCATCCGTCCCCCCTCAGGGACCAAGAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCCGCCGCCTCGACCACCGCCCCCTCTCCCCATCCGTCCCCCTCAGGGACCAAGAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCGGCCCAGCCCAGCCTGCCGGAGCCCACGGAGCTACCTCTACCTCCACTCCTGCCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTCAACAGTAGCCCCCGGGTCCCCGTCAGCCCCCTCAAGTTCTCCCCCTTTTTGAGGGGGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGTCCTGGACAGCATCAAGGAGGGCTTCTCCTTCCAGCCCAAGCTGCGCTCACCCAGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CACAGCCCTCÁGCGAGAGTGCCAACCAGGCTTCCTGGGCTTCACATACGTGGCGCCGTC 1287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Application US/09968433
                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                        37.0%;
                                                                                                                                                                                                                                       ç
                                                                                                                                                                                                                                       Score 672.6; DB 10
Pred. No. 5.8e-171;
0; Mismatches 84;
                                                                                                                                                                                                                                                                      DB 10;
                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                      Length 1058;
                                                                                                                                                                                                                                          2
                                                                                                                                                                                                                                          Gaps
                  325
                                                                                                                                                                                                          145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1413
                                                 227
                                                                                265
                                                                                                              167
                                                                                                                                             205
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1586
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1467
                                                                                                                                                                             107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1347
```

Query Match 34.6%; Score 628.8; DB 15; Length 1800; Best Local Similarity 71.1%; Pred. No. 4.1e-159;	ເວ	LENGTH: TYPE: DN ORGANISM FEATURE:	PRIOR FILING DATE: 2002-02-08 NUMBER OF SEQ ID NOS: 308 SOFTWARE: PatentIn version 3.1 SEC ID NO 31	FILE REPERENCE: 8865M  CURRENT APPLICATION NUMBER: US/10/316,253  CURRENT FILING DATE: 2002-12-10  DETOR APPLICATION NUMBER: US 60/155 295	; APPLICANT: Thompson, Larry ; APPLICANT: Wang, Feng ; APPLICANT: Greis, Kenneth ; TITLE OF INVENTION: Anglogenesis Modulating Proteins	; Publication No. US20030162706A1 ; GENERAL INFORMATION: ; APPLICANT: The Procter & Gamble Company ; APPLICANT: Peters. Kevin	RESULT 7 US-10-316-253-31 ; Sequence 31, Application US/10316253	Qy 865 GSACTGGTGGAGCCTGGGGGGCCCTGATGTACGACATGCTCACTGGATCGCC 915	Oy 806 GGCACCATTGAGTACATGGCCCCTGAGA-TTCTGGTGCGCAGTGGCCACAACCGGGCTGT 864	Qy 746 ACCGACTTTGGACTCTGCAAGGAGTCTATCATGAGGGCGCCGTCACTCAC	Qy 686 ATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCCAGGGCCACATCAAACTG 745	Qy 626 GCCTGCTTCTACCTGGCTGAGATCACGCTGGGCCCTGGGCCATCTCCACTCCCACGGCATC 685	Qy 566 CTCAGTGGTGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACG 625	OY 506 ATTGTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGC 565	Qy 446 AAGGACACAGCACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTT 505	Qy 386 AACTTGGGCAAAATATATATGCCATGAAAGTCCTAAGGAAGG	Oy 326 CGTGTGCTGGGCAAGGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACC 385	Db 228 ACAGAGAGCAGCGTGAACCTGGGTCCTGAGCGCATCGGGCCCCACTGCTTTGAGCTACTG 287
Db 1281 AGGTCTTCTGGGTTTTACATATGTGGCTCCATCTGTACTTGAAAGTGTGAAAGAAA	1200	Qy 1140 ACCCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGAGGAGGAGGAGGTTTGATACCCGCT 1199	Qy 1080 TGCAGAGACATCCCTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGG 1139	Qy 1020 AGTTTCTGAAACGGAATCCCAGCCAGCCAGTGGCCCAGGGGATGCTGCTGATG 1079	QY 960 TCAGGGGCAAGCTGGCACTGCCCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAA 1019	OY 900 TGCTCACTGGATCGCCGCCCTTTACCGCAGAGAACCGGAAGAAACCATGGATAAGATCA 959	Qy 840 TGCGCAGTGGCCACAACCGGGCTGTGGAGCTGGGGGGCCCTGGGGGGCCCTGATGTACGACA 899	Oy 780 AGGGCGCGTCACTCACCTCTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGG 839	OY 720 TOAGCAGCCAGGGCCACATCAAACTGACCGACTTTTGGACTCTGCAAGGAGTCTATCCATG 779	Qy 660 TGGGCCATCTCCACTCCCAGGCATCATCTACCGGGACCCCAAGAACATCATGC 719	OY 600 GAGAGGGCATCTTCCTGGAAAGATACGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCC 659	OY 540 GCAAACTCTACCTCATCCTTGAGTGCCTCAGTGGTGGCGGAGCTCTTCACGCATCTGGAGC 599	Oy 480 TICTAGAGTGAAGGACCCCTTTATTGTGGAACTGGCCTATGCCTTCCAGACTGGTG 539	OY 420 GGAAGGCCAAAATTGTGCGCAATGCCAAGGACACACGCACACGGGCTGAGCGGAACA 479	OY 360 TCCAGGTGCGAAAGGTGCAAGGCACCAACATTGGGCAAAATATATGCCATGAAAGTCCTAA 419	Oy 300 TCGGCCCCCACTGCTTTGAGCTGCTGCGTGTGCTGGGCAAGGGGGGGCTATGGCAAGGTGT 359	QY 240 TGGGACACTATGAAGAGGTGGAGCTGAACCAGCGTGAACGTTGGCCCAGAGCGGA 299	Matches 831; Conservative 0; Mismatches 337; Indels 0; Gaps 0;

```
몺
                                           Ś
                                                                                  닭
                                                                                                               Ś
                                                                                                                                                          문
                                                                                                                                                                                            Ş
                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                 맑
                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                       δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                         멇
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; NAME/KEY: CDS
; LOCATION: (22)..(1599)
; OTHER INFORMATION:
US-10-316-253-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 8
US-10-316-253-33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            닭
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local S
Matches 830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SOFTWARE: PatentIn version 3.1
SEQ ID NO 33
LENGTH: 2287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 33, Application US/10316253
Publication No. US20030162706A1
GENERAL INFORMATION:
APPLICANT: The Procter & Gamble Company
APPLICANT: Peters, Kevin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Gree, Kenneth
TITLE OF INVENTION: Angiogenesis Modulating
FILE REFERENCE: 8865M
CURRENT APPLICATION NUMBER: US/10/316,253
CURRENT FILING DATE: 2002-12-10
PRIOR APPLICATION NUMBER: US 60/355,295
PRIOR FILING DATE: 2002-02-08
PRIOR FILING DATE: 2002-03-08
NUMBER OF SEQ ID NOS: 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: DNA
ORGANISM: Rattus
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1320
             638
                                               660
                                                                                    578
                                                                                                                                                                                                                                 458
                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                        398
                                                                                                                     600
                                                                                                                                                          518
                                                                                                                                                                                              540
                                                                                                                                                                                                                                                                                                                                             420
                                                                                                                                                                                                                                                                                                                                                                                338
                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                         278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        830;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                GCAAACTCTACCTCATCCTTGAGTGCCTCAGTGGTGGCGAGCTCTTCACGCATCTGGAGC
             TGGGGCATTTACATCAAAAGGGGATTATCTACAGAGACCTGAAGCCGGAGAACATCATGC
                                       TGGGCCATCTCCACTCCCAGGGCATCATCTACCGGGACCTCAAGCCCGAAGAACATCATGC
                                                                                                                                                      GAAAACTCTACCTCATCCTTGAGTATCTCAGTGGAGGAGAACTATTTATGCAGTTAGAAA
                                                                                                                                                                                                                                                                                                        AAAAGGCAATGATAGTAAGAÄÄTGCTÄÄÄÄGÄTÄCÄÄGCTCÄTÄCÄAAAGCAGÄGCGGÄÄTÄ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCGGGCCCACTGCTTTGAGCTGCTGCGTGTGCTGGGCAAGGGGGCTATGGCAAGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGGGACACTATGAAGAGGTGGAGCTGAACTGAGACCAGCGTGAACGTTGGCCCAGAGCGCA
                                                                              GAGAGGGATATTCATGGAAGATACAGCTTGCTTTTACTTGGCTGAAATCTCCATGGCTT
                                                                                                                 GAGAGGGCATCTTCCTGGAAGATACGGCCTGCCTTCTACCTGGCTGAGATCACGCTGGCCC
                                                                                                                                                                                                                                 TTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCCTATGCCTTCCAGACTGGTG
                                                                                                                                                                                                                                                                                                                                         TCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAAAATATATGCCATGAAAGTCCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGGAACATTGTGAGAAATTTGAAATCTCAGAAACTAGTGTGAACAGAGGGCCCAGAAAAAA
                                                                                                                                                                                                                                                                                                                                                                              TTCAAGTACGAAAAGTAACAGGAGCAAATACTGGGAAGATATTTGCCATGAAGGTGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCAGACCAGAATGTTTTGAGCTACTTCGGGTACTTGGTAAAGGGGGGCTATGGAAAGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGCCCCCTCAAGTTCTCCCCTTTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTTCTTTTGAACCAAAAATCCGATCGCCTCGAAGATTTATTGGTAGCCCACGAACGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCAGCCCAGTCAAATTCTCTCCTGGGGA 1428
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOTOCTTOCAGOCCAAGOTGOGCTCACCCAGGGGCGTCAACAGTAGCCCCGGGGTCCCCG 1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Thompson, Larry
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     34.6%;
71.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 628.2; DB 15; Length 2287; Pred. No. 6.3e-159; O; Mismatches 338; Indels O;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                             719
         697
                                                                                637
                                                                                                                   659
                                                                                                                                                        577
                                                                                                                                                                                                                               517
                                                                                                                                                                                                                                                                  539
                                                                                                                                                                                                                                                                                                        457
                                                                                                                                                                                                                                                                                                                                           479
                                                                                                                                                                                                                                                                                                                                                                              397
                                                                                                                                                                                                                                                                                                                                                                                                                 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                     337
                                                                                                                                                                                            599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
Sequence 230, Application US/10191803
| Publication No. US20040014040A1
| GRNERAL INFORMATION: APPLICANT: MEMDRICK, Donna | APPLICANT: MEMDRICK, Donna | APPLICANT: PORTER, Mark | APPLICANT: JOHNSON, KOTY | APPLICANT: LIGGS, Brandon | APPLICANT: LEASHOFF, Michael | TITLE OF INVENTION: Cardiotoxin Molecular Toxicology Modeling | CURRENT FILING DATE: 2002-07-10 | PRIOR APPLICATION NUMBER: US 60/303,819 | PRIOR APPLICATION NUMBER: US 60/305,623 | PRIOR APPLICATION NUMBER: US 60/305,623 | PRIOR APPLICATION NUMBER: US 60/369,351 | PRIOR APPLICATION NUMBER: US 60/377,611 | PRIOR APPLICATION NUMBER: US 60/377,611 | PRIOR FILING DATE: 2002-04-03 | PRIOR APPLICATION NUMBER: US 60/377,611 | PRIOR FILING DATE: 2002-05-06
                                                                                                                                                                                                                                                                                                                                                                                                US-10-191-803-230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        꿈
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  뫉
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            片
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1380 TCAGCCCCCTCAAGTTCTCCCCTTTTGA 1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1058
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            938
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTTCTTTTGAACCAAAAATCCGATCGCCTCGAAGATTTATTGGTAGCCCACGAACGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCTCCTTCCAGCCCAAGCTGCGCTCACCCAGGCGCCTCAACAGTAGCCCCCGGGTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AGGCCTTCCTGGGCTTCACATACGTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCAGAGACATCCCTTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCCTGTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCAGGGGCAAGCTGGCACTGCCCCCTACCTCACCCCAGATGCCCCGGGACCTTGTCAAAA 1015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGCTCACTGGATCGCCGCCCTTTACCGCAGAGAACCGGAAGAAAACCATGGATAAGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCACACGCAGACGCCGGTGGACAGTCCTGATGACACCCCTCAGCGAGAGTGCCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCGCCCCTTTAAGCCTCTGTTGCAATCTGAAGAGGATGTGAGTCAGTTTGATTCAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCCAAGCGCATCCATTTTTAGACACATTAACTGGGAAGAGCTTTTTGGCTCGGAAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCTGCTGAAGAGAAATGCTGCTTCTCGTCTTGGAGCTGGCCCCTGGGGATGCTGGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGTTTCTGAAACGGAATCCCAGCCAGCGGATTGGGGGGTGGCCCAGGGGATGCTGCATG 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAAATGTAAACTTAATTTGCCTCCCTACCTCACACAAGAAGCTCGAGATCTGCTTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAGAAGCGGCCACAACCGTGCTGGATTGGTGGAGTCTGGGAGCATTAATGTATGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGAGCCTGGGGGGCCCCTGATGTACGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGAACAGTCACGCACACATTTTGTGGAACAATAGAATACATGGCCCCCTGAAATCTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGGGCGCCTTCACACACCTTCTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGG 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAGCAGCCAGACCACACCACACCTGACCGACTCTGCCAAGGAGTCTATCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTAATCACCAAGGTCACGTGAAGCTGACAGACTTTGGACTATGCAAAGAATCTATTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1057
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1237
```

1117

```
US-10-191-803-230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; NUMBER OF SEQ ID NOS
; SOFTWARE: PatentIn V
; SEQ ID NO 230
; LENGTH: 2287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 34.6
Best Local Similarity 71.1
Matches 830; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURE: OTHER INFORMATION: Genbank Accession No. US20040014040A1 NM_031985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 2287
TYPE: DNA
ORGANISM: Rattus norvegicus
                                                                                                                                                                                                                      856
                                                                                                                                                                                                                                                                                                                                                                                                                                             818
                                                                                                                                                                                                                                                                                                                                                                                    900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        758
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  278
TCCAAGCGCATCCATTTTTTAGACACATTAACTGGGAAGGCTTTTGGCCTCGGAAGGTGG
                                      TGCAGAGACATCCCTTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGG
                                                                                                                                                                                                                                                                                                                                  TGCTCACTGGATCGCCGCCCTTTACCGCAGAGAACCGGAAGAAAACCATGGATAAGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                TGAGAAGCGGCCACAACCGTGCTGTGGATTGGTGGAGTCTGGGAGCATTAATGTATGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ATGGAACAGTCACGCACACATTTTGTGGAACAATAGAATACATGGCCCCTGAAATCTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGGCGCGTCACTCACACCTTCTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGGGGCATTTACATCAAAAGGGGATTATCTACAGAGACCTGAAGCCGGAGAACATCATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAAAATATATGCCATGAAAGTCCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TGGAACATTGTGAGAAATTTGAAATCTCAGAAACTAGTGTGAACAGAGGGCCAGAAAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TGGGACACTATGAAGAGGTGGAGCTGACTGAGACCTGAACGTTGGCCCAGAGCGCA
                                                                                                                                                                 AGTTTCTGAAACGGAATCCCAGCCAGCGGATTGGGGGGTGGCCCAGGGGATGCTGCTGATG 1079
                                                                                                                                                                                                                      TCAAATGTAAACTTAATTTGCCTCCCTACCTCACAAGAAGCTCCGAGATCTGCTTAAAA
                                                                                                                                                                                                                                                                      тслевесклествескот вессоствествествеская посетавание подвеждения по транствения п
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGAGCCTGGGGGGCCCTGATGTACGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TTAATCACCÁAGGTCÁCGTGAAGCTGÁCAGACTTTGGÁCTATGCÁÁAGAATCTATTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGCAGCCAGGCCACATCAAACTGACCGACTTTGGACTCTGCAAGGAGTCTATCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GAAAACTCTACCTCATCCTTGAGTATCTCAGTGGAGGAGAACTATTTATGCAGTTAGAAA 577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAAACTCTACCTCATCCTTGAGTGCCTCAGTGGTGGTGGAGCTCTTCACGCATCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAAAGGCAATGATAAGAAAATGCTAAAGATACAGCTCATACAAAAGCAGAGCGGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAGACCAGAATGITTTGAGCTACTTCGGGTACTTGGTAAAGGGGGGCTATGGAAAGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCGGGCCCACTGCTTTGAGCTGCTGCGTGTGCTGGGCAAGGGGGGGCTATGGCAAGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        теевсситетесяетсесяевеситеятствесевенестельнеесевналисительно
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAGGGGATATTCATGGAAGATACAGCTTGCTTTTACTTGGCTGAAAATCTCCATGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TTCAAGTACGAAAAGTAACAGGAGCAAATACTGGGAAGATATTTGCCATGAAGGTGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCCTATGCCTTCCAGACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NOS: 1140
In Ver, 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 628.2; DB 16;
Pred. No. 6.3e-159;
0; Mismatches 338;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                  1139
                                                                                                                                                                                                                      997
                                                                                                                                                                                                                                                                                                                                     937
                                                                                                                                                                                                                                                                                                                                                                                                                                                877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    397
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              277
                                                                                                                                                                                                                                                                                                                                                         ; SOPTWARE: PatentIn version 3
; SEQ ID NO 1137
; LENGTH: 2346
; TYPE: DNA
; ORGANISM: Homo sapiens
US-09-954-456-1137
                                                                 δ
                                                                                                                                   ₽
                          문
                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILE REFERENCE: 689290-76

CURRENT APPLICATION NUMBER: US/09/954,456

CURRENT FILING DATE: 2001-09-18

PRIOR APPLICATION NUMBER: US/60/233,617

PRIOR FILING DATE: 2000-09-18

PRIOR FILING DATE: 2000-09-26

PRIOR APPLICATION NUMBER: US/60/234,052

PRIOR APPLICATION NUMBER: US/60/234,923

PRIOR FILING DATE: 2000-09-25

PRIOR APPLICATION NUMBER: US/60/235,134

PRIOR APPLICATION NUMBER: US/60/235,134

PRIOR APPLICATION NUMBER: US/60/235,637

PRIOR FILING DATE: 2000-09-26

PRIOR FILING DATE: 2000-09-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 10
US-09-954-456-1137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ŗ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                              Query Match
Best Local Sim
Matches 824;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1137, Application Patent No. US20020115057A1 GENERAL INFORMATION: APPLICANT: Young, Paul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION NUMBER: US/60/235,863
PRIOR FILING DATE: 2000-09-27
NUMBER OF SEQ ID NOS: 2276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR
PRIOR
PRIOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION: Process
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/60/235,720 FILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US/60/235,840 FILING DATE: 2000-09-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/60/235,711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 2000-09-26
APPLICATION NUMBER: US/60/235,638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 2000-09-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1238
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1260
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1140 ACCCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGAGGTGAGCCAGTTTGATACCCGCT
                                                                             300
                          284
                                                                                                                                                                                                                                                                            Similarity
                                                                          regegeceaergerrieagergergergreergecaagegegeerarggeaaagergr
                                                                                                                                      TGGAACATTGTGAGAAATTTGAAATCTCAGAAACTAGTGTGAACAGAGGGGCCAGAAAAAA
                                                                                                                                                                          TGGGACACTATGAAGAGGTGGAGCTGACTGAGACCAGCGTGAAACGTTGGCCCAGAGCGCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCACACGGCAGACGCCGGTGGACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACC 1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAGCCCCCTCAAGTTCTCCCCTTTTGA 1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGCCTTCCTGGGCTTCACATACGTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTTCTTTTGAACCAAAAATCCGATCGCCTCGAAGATTTATTGGTAGCCCACGAACGCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TCTCCTTCCAGCCCAAGCTGCGCTCACCCAGGCGCCTCAACAGTAGCCCCCGGGTCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AGCGCCCCTTTAAGCCTCTGTTGCAATCTGAAGAGGATGTGAGTCAGTTTGATTCAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2000-09-27
                                                                                                                                                                                                                                                                         34.18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US/09954456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   for Identifying Anti-Cancer Therapeutic Agents Using
                                                                                                                                                                                                                                                 Score 619.8; DB 9;
Pred. No. 1.2e-156;
0; Mismatches 344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1385
                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                    ç
                                                                                                                                                                                                                                                    Gaps
                                                                                359
                                                                                                                                         283
                                                                                                                                                                                                 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1199
                                                                                                                                                                                                                                                    0
```

밁 Ś B 8

S 밁 8 g

ð 맑 δ 꿊 ર્શ

밁

밁 S Ś 밁

B

밁 S S

문 \$

밁

밁 Ś ₽ ð

S

```
1304
                                                                                                               1320
                                                                                                                                                     1244
                                                                                                                                                                                                                                                                  1200
                                                                                                                                                                                                                                                                                                        1124
                                                                                                                                                                                                                                                                                                                                                                                                                                                            1004
                                                                                                                                                                                                                                                                                                                                                                                   1064
                                                                                                                                                                                                                                                                                                                                                                                                                       1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 360
TCACACGGCAGACGCCGGTGGACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACC
                                                                                                                                                                                                                                                                                                                                                                                                     TGCAGAGACATCCCTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGG
                                                                                                                                                                           AGGCCTTCCTGGGCTTCACATACGTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCT
                                                                                                                                                                                                                                                                                                                                           TTCAAGCTCATCCATTCTTTAGACACATTAACTGGGAAGAACTTCTGGCTCGAAAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCIGCIGABAAGAAAIGCIGCITCTCGICIGGGAGCIGGICCTGGGGAGCCTGGAGAAG
                                                                            TTTCCTTTGAACCAAAAATCCGATCACCTCGAAGATTTATTGGCAGCCCACGAACACCTG
                                                                                                               rciccircaeccaaacracecraaccaecaccaecaccicaacaeinecaccece
                                                                                                                                                       AGCCCCCTTTAAACCTCTGTTGCAATCTGAAGAGGATGTAAGTCAGTTTGATTCCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AGTTTCTGAAACGGAATCCCAGCCAGCGATTGGGGGTTGGCCCAGGGGATGCTGCTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCAAATGTAAACTCAATTTGCCTCCCTACCTCACACAAGAAGCCAGAGATCTGCTTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAGGGGAAGCTGGCACTGCCCCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAA 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGCTCACTGGATCGCCGCCCTTTACCGCAGAGAACCGGAAGAAACCATGGATAAGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGCAGTGGCCACAACCGGGCTGTGGACTGGTGGAGCCTGGGGGGGCCCTGATGTACGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATGGAACAGTCACACACATTTTGTGGAACAATAGAATACATGGCCCCTGAAATCTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AGGGCGCCGTCACTCACACCTTCTGCGGCCACCATTGAGTACATGGCCCCTGAGATTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTAATCACCAAGGTCATGTGAAACTAACAGACTTTGGACTATGCAAAGAATCTATTCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGCAGGGCCAGGGCCACATCAAACTGACCGACTTTGGACTCTGCAAGGAGTCTATCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGCCATCTCCACTCCCAGGGCATCATCTACCGGGGACCTCAAGCCCCGAGAAACATCATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GAAAACTCTACCTCATCCTTGAGTATCTCAGTGGAGGAGAACTATTTATGCAGTTAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAAAATATATGCCATGAAAGTCCTAA 419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TGCTGACTGGAGCACCCCATTCACTGGGGAGAATAGAAAAGAAAACAATTGACAAAATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGAGAAGTGGCCACAATCGTGCTGGATTGGTGGAGTTTGGGAGCATTAATGTATGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GAGAGGGAATATTTATGGAAGACACTGCCTGCTTTTACTTGGCAGAAATCTCCATGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAAACTCTACCTCATCCTTGAGTGCCTCAGTGGTGGCGAGCTCTTCACGCATCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCTGGAGGAAGTAAAGCATCCCTTCATCGTGGATTTAATTTAFGCCTTTCAGACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TGGGGCATTTACATCAAAAGGGGATCATCTACAGAGACCTGAAGCCGGAGAATATCATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAAAGGCAATGATAGTAAGAAATGCTAAAGATACAGCTCATACAAAAGCAGAACGGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCCTATGCCTTCCAGACTGGTG
                                                                                                                                                                                                                                                                  1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1079
                                                                                                                 1379
                                                                                                                                                                                                                            1243
                                                                                                                                                                                                                                                                                                                                           1199
                                                                                                                                                                                                                                                                                                                                                                                 1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                          1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   959
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                463
```

문 Ş g Ś 밁 ঠ 문 S В 5 망 S 밁 Š В Ó

밁 S 문 S 밁

1364

g

S ğ

Ś

S

음 중

뫄 S В Ş 문 S 밁 Ś

```
RESULT 11

US-09-920-677-3

; Sequence 3, Application US/09920677

; Publication No. US20030083284A1

; GENERAL INFORMATION;

APPLICANT: Brett P. Monia

APPLICANT: Lex M. Cowsert

; TITLE OF INVENTION: ANTISENSE MODULATION OF P70

; FILE REFERENCE: RTS-0245

; CURRENT APPLICATION NUMBER: US/09/920,677

; CURRENT FILING DATE: 2001-08-01

; NUMBER OF SEQ ID NOS: 49

; SEQ ID NO 3

; LENGTH: 2346

; TYPE: DNA

; ORGANISM: Homo sapiens
; PEATURE;
; NAME/KEY: CDS
; LOCATION: (28)...(1605)
                                                                                                                                      `_6
                        ð
                                                                                 Ś
                                                                                                                     8
                                                                                                                                                                            F
                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                    Ś
                                                                                                                                                                                                                                                                                                            몽
                                                                                                                                                                                                                                                                                                                                   8
                                                                                                                                                                                                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                            5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-920-677-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 824;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match

Best Local Similarity 70.5%;
884
                                                           824
                            900
                                                                                                                         764
                                                                                                                                                                                                                                                644
                                                                                                                                                                                                                                                                              660
                                                                                                                                                                                                                 720
                                                                                                                                                                                                                                                                                                              584
                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                         524
                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                     464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     240 TGGGACACTATGAAGAGGTGGAGCTGACTGAGACCAGCGTGAACGTTGGCCCAGAGCGCA
                   TGCTCACTGGATCGCCCCTTTACCGCAGAGAACCGGAAGAAAACCATGGATAAGATCA
                                                                                                                                                                                                                                                                                                                           GAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCC
TECTEACTEGAGCACCCCCATTCACTEGGGAGAATAGAAAGAAAACAATTGACAAATCC
                                                                                                                                      AGGGCGCGTCACTCACACCTTCTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGG
                                                                                                                                                                                                                                                                         TGGGCCATCTCCACTCCAGGGCATCATCTACCGGGACCCTCAAGCCCGAGAACATCATGC
                                                                                                                                                                                                                                                                                                            GAGAGGGAATATTTATGGAAGACACTGCCTGCTTTTACTTGGCAGAAATCTCCATGGCTT
                                                                                                                                                                                                                                                                                                                                                                         GAAAACTCTACCTCATCCTTGAGTATCTCAGTGGAGGAGGAACTATTTATGCAGTTAGAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGAGAAGTGGCCACAATCGTGCTGTGGATTGGTGGAGTTTGGGAGCATTAATGTATGACA
                                                                                         TGCGCAGTGGCCACAACCGGGCTGTGGACTGGTGGAGCCTTGGGGGCCCTGATGTACGACA
                                                                                                                       ATGGAACAGTCACACACATTTTGTGGAACAATAGAATACATGGCCCCTGAAATCTTGA
                                                                                                                                                                                    TTAATCACCAAGGICATGTGAAACTAACAGACTTTGGACTATGCAAAGAATCTATTCATG
                                                                                                                                                                                                       TCAGCAGCCAGGGCCACATCAAACTGACCGACTTTGGACTCTGCAAGGAGTCTATCCATG
                                                                                                                                                                                                                                                TGGGGCATTTACATCAAAAGGGGATCATCTACAGAGACCTGAAGCCGGAGAATATCATGC
                                                                                                                                                                                                                                                                                                                                                                                          GCAAACTCTACCTCATCCTTGAGTGCCTCAGTGGTGGCGAGCTCTTCACGCATCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCTGGAGGAAGTAAAGCATCCCTTCATCGTGGATTTAATTTATGCCTTTCAGACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCCTATGCCTTTCCAGACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAAAGGCAATGATAGTAAGAAATGCTAAAGATACAGCTCATACAAAAGCAGAACGGAATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCAAGTACGAAAAGTAACAGGAGCAAATACTGGGAAAATATTTGCCATGAAGGTGCTTA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCCAGGTGCGAAAGGTGCAAGGCACCCAACTTGGGCAAAATATATGCCATGAAAGTCCTAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAGACCAGAATGTTTTGAGCTACTTCGGGTACTTGGTAAAGGGGGGGCTATGGAAAGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCGGGCCCCACTGCTTTGAGCTGCTGCGTGTGCTGGGCAAGGGGGGGCTATGGCAAGGTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 619.8; DB 10;
Pred. No. 1.2e-156;
0; Mismatches 344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         KINASE EXPRESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2346;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     <u>..</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
943
                             959
                                                           883
                                                                                           899
                                                                                                                                                       839
                                                                                                                                                                                    763
                                                                                                                                                                                                                                                703
                                                                                                                                                                                                                                                                                719
                                                                                                                                                                                                                                                                                                              643
                                                                                                                                                                                                                                                                                                                                            659
                                                                                                                                                                                                                                                                                                                                                                         583
                                                                                                                                                                                                                                                                                                                                                                                                         599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       299
                                                                                                                                                                                                                                                                                                                                                                                                                                       523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         283
```

```
APPLICANT: WALKER, MICHAEL GRAHAM
TITTLE OF INVENTION: GENE EXPRESSION PROFILING IN
FILE REFERENCE: 39740-0001US
CURRENT APPLICATION NUMBER: US/10/388,360
CURRENT FILING DATE: 2003-03-12
PRIOR APPLICATION NUMBER: US 60/412,049
PRIOR FILING DATE: 2002-09-18
PRIOR PRIOR DATE: 2002-09-18
PRIOR FILING DATE: 2002-09-13
INUMBER OF SEQ ID NOS: 384
SECTIMARE: FastSEQ for Windows Version 4.0
SEQ ID NO 321
LENGTH: 2346
Š
                                밁
                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 321, Application US
Publication No. US203022555
GENERAL INFORMATION
APPLICANT: GENOMIC HEALTH
APPLICANT: Baker, Joffre E
APPLICANT: Cronin, Maureer
APPLICANT: Kiefer, Michael
APPLICANT: Shak, Steve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 12
US-10-388-360-321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
                                                                                                 뮍
                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           뭐
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                       US-10-388-360-321
                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                 TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1244
                                                                                                                                    TGGGACACTATGAAGAGGTGGAGCTGACTGAGACCAGCGTGAACGTTGGCCCCAGAGCGCA
                                                                                                   TGGAACATTGTGAGAAATTTGAAATCTCAGAAAACTAGTGTGAACAGAGGGCCAGAAAAAA 283
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGCCCCCTTTAAACCTCTGTTGCAATCTGAAGAGGATGTAAGTCAGTTTGATTCCAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCAAATGTAAACTCAATTTGCCTCCCTACCTCACACAAGAAGCCAGAGATCTGCTTAAAA
TCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAAAATATATGCCATGAAAGTCCTAA 419
                                TCAGACCAGAATGTTTTGAGCTACTTCGGGTACTTGGTAAAGGGGGGCTATGGAAAGGTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Baker, Joffre B.
Cronin, Maureen T.
Kiefer, Michael C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TCAGCCCAGTCAAATTTTCTCCTGGGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TCAGCCCCCTCAAGTTCTCCCCTTTTGA 1407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTTCCTTTGAACCAAAAATCCGATCACCTCGAAGATTTATTGGCAGCCCACGAACACCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCTCCTTCCAGCCCAAGCTGCGCTCACCCAGGCGCCTCAACAGTAGCCCCCCGGGTCCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGGT CTTT CTGGGTTTTA CATATGTGGCT CCATCTGTACTTGAAAGTGTGAAAGAAAAGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AGGCCTTCCTGGGCTTCACATACGTGGCGCCGTCTGTCCTGGACAGCATCAAGGAGGGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTACACGTCAGACACCTGTCGACAGCCCAGATGACTCAACTCTCAGTGAAAGTGCCAATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCACACGGCAGACGCCGGTGGACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ACCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TTCAAGCTCATCCATTCTTTAGACACATTAACTGGGAAGAACTTCTGGCTCGAAAGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCAGAGACATCCCTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AGCTGCTGAAAAGAAATGCTGCTTCTCGTCTGGGAAGCTGGTCCTGGGGAACGCTGGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTTTCTGAAACGGAATCCCAGCCAGCGATTGGGGGTTGGCCCAGGGGATGCTGCTGATG 1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAGGGGCAAGCTGGCACTGCCCCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAA 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Application US/10388360
                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US20030225528A1
                                                                                                                                                                                   34.18;
70.58;
                                                                                                                                                               Score 619.8; DB 13;
Pred. No. 1.2e-156;
0; Mismatches 344;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BIOPSIED TUMOR TISSUES
                                                                                                                                                                                                   Length
                                                                                                                                                                   0;
                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1319
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1063
                                                                                                                                                                          밁
                                                                            ð
                                                                                                                  밁
                                                                                                                                           8
                                                                                                                                                                                                                  Q
                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                         밁
                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                          B
                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
 RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                맑
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                멼
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Б
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  맑
 13
                                                    1364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 960
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  900
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    344
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         660
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                464
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  420
                                                    TCAGCCCAGTCAAATTTTCTCCTGGGGA
                                                                                                                                                    TCTCCTTCCAGCCCAAGCTGCGCTCACCCAGGCGCCTCAACAGTAGCCCCCGGGTCCCCG
                                                                                                                                                                                                                                                        TTACACGTCAGACACCTGTCGACAGCCCAGATGACTCAACTCTCAGTGAAAGTGCCAATC
                                                                                                                                                                                                                                                                              TCACACGGCAGACGCCGGTGGACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACC
                                                                                                                                                                                                                                                                                                                                                                                                              TGCAGAGACATCCCTTTTTCCGGCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGG 1139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TCAAATGTAAACTCAATTTGCCTCCCTACCTCACACAAGAAGCCAGAGATCTGCTTAAAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TGCTCACTGGATCGCCGCCCTTTACCGCAGAGAAACCGGAAGAAAACCATGGATAAGATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TCAGCAGCCAGGGCCACATCAAACTGACCGACTTTGGACTCTGCAAGGAGTCTATCCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TTCAAGTACGAAAGTAACAGGAGCAAATACTGGGAAAATATTTGCCATGAAGGTGCTTA
                                                                                 rcasccccrcaastrcrccccrrrrsa 1407
                                                                                                                     TTTCCTTTGAACCAAAAATCCGATCACCTCGAAGATTTATTGGCAGCCCACGAACACCTG
                                                                                                                                                                                                         AGGCCTTCCTGGGCTTCACATACGTGGCGCGTCTGTCCTGGACAGCATCAAGGAGGGCT
                                                                                                                                                                                                                                                                                                                           AGCCCCCTTTAAACCTCTGTTGCAATCTGAAGAGGATGTAAGTCAGTTTGATTCCAAGT
                                                                                                                                                                                                                                                                                                                                                           ACCCCCTTTCAGGCCCTGTCTGCAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCT 1199
                                                                                                                                                                                                                                                                                                                                                                                                                                                             AGCTGCTGAAAAGAAATGCTGCTTCTCGTCTGGGAGCTCGTCCTGGGGACGCTGGAGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGTITCTGAAACGGAATCCCAGCCAGCGGATTGGGGGGTGGCCCAGGGGATGCTGCTGATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TCAGGGGCAAGCTGGCACTGCCCCCTACCTCACCCCAGATGCCCGGGACCTTGTCAAAA 1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TGAGAAGTGGCCACAATCGTGCTGTGGATTGGTGGAGTTTGGGGAGCATTAATGTATGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TGCGCAGTGGCCACAACCGGGCTGTGGAACTGGTGGAGCCTTGGGGGGCCCTGATGTACGACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATGGAACAGTCACACACACTTTTGTGGAACAATAGAATACATGGCCCCTGAAATCTTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGGGCGCCGTCACTCACACCTTCTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TGGGGCATTTACATCAAAAGGGGATCATCTACAGAGACCTGAAGCCGGAGAATATCATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TGGGCCATCTCCACTCCCAGGGCATCATCTACCGGGACCTCAAGCCCGAGAACATCATGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGAGGGAATATTTATGGAAGACACTGCCTGCTTTTACTTGGCAGAAATCTCCATGGCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAGAGGGCATCTTCCTGGAAGATACGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCAAACTCTACCTCATCCTTGAGTGCCTCAGTGGTGGCGAGCTCTTCACGCATCTGGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTCTGGAGGAAGTAAAGCATCCCTTCATCGTGGATTTAATTTATGCCTTTCAGACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACTGGCCTATGCCTTCCAGACTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>AAAAGGCAATGATAGTAAGAAATGCTAAAGATACAGCTCATACAAAAGCAGAACGGAATA</u>
                                                    1391
                                                                                                                                                                                                                         1319
                                                                                                                                                        1379
                                                                                                                                                                                                                                                           1243
                                                                                                                                                                                                                                                                                                                             1183
                                                                                                                                                                                                                                                                                                                                                                                              1123
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1079
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        839
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        779
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        703
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           719
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               583
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               599
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  523
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    403
```

```
Ś
                                                                                                       밁
                                                                                                                                                                                                                                                                                                                                                                                                                                           당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               멍
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                     S
                                                   맑
                                                                            Ś
                                                                                                                                Ś
                                                                                                                                                            문
                                                                                                                                                                                     Ś
                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                                                                                      Ś
                                                                                                                                                                                                                                          S
                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                     밁
                                                                                                                                                                                                                                                                                                                                                                                                               Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; NAME/KEY: unsure
; LOCATION: (1) ... (669)
; OTHER INFORMATION: a, t,
US-10-305-720-118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Au-Young, Janice K.; Seilhamer, Jeffrey J.
TITLE OF INVENTION: Composition for the Detection of Signaling Pathway
FILE REFERENCE: PA-0002-1 CON
CURRENT APPLICATION NUMBER: US/10/305,720
CURRENT FILING DATE: 2002-11-26
PRIOR APPLICATION NUMBER: 09/016,434
PRIOR PRILING DATE: 1998-01-30
NUMBER OF SEQ ID NOS: 1490
SOFTWARE: PERL Program
SEQ ID NO 118
LENGTH: 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 646; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 118, Application US/10305720 Publication No. US20040010136A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Incyte ID No. US20040010136A1 1290913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME/KEY: misc_feature
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
596
                          694
                                                   537
                                                                             634
                                                                                                         478
                                                                                                                                   574
                                                                                                                                                              418
                                                                                                                                                                                        514
                                                                                                                                                                                                                  358
                                                                                                                                                                                                                                             454
                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                   394
                                                                                                                                                                                                                                                                                                                              238
                                                                                                                                                                                                                                                                                                                                                       334
                                                                                                                                                                                                                                                                                                                                                                                     178
                                                                                                                                                                                                                                                                                                                                                                                                                                           125
                                                                                                                                                                                                                                                                                                                                                                                                               274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   94 GGCCCGCGGGGCCGGCCCGCCATGGCCGCCCGTTTTTGGATTTTGGAGACGCGACGA 153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Φ
                 GGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGACCGACTT
                                                                    CTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCACTCCCAGGGCATCATCTACCG
                                                                                                                                                                                 ACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGCCTCAGTGG
                                                                                                                                                                                                                                                                                                                                            GGGCAAGGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCCACCAACTTGGG 393
                                                                                                                                                                                                                                                                                                                                                                                                   CAGCGTGAACGTTVGCCCCAGAGCGCATCGGGGCCCCCACTGCTTTGAGCTGCTGCGTGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTGAGGCAGCTGGCCTAGAGCCTGTGGGACACTATGAAGAGG-----GACTGAGAC 177
 GGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCAAACTGANCGANTT
                                                      CTACCNGGCTGAGATCACGCTGGCCCTGGGCCATCT-CACTCCCAGGGCATCATCTACCG
                                                                                                                                   TGGCGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCCTGCTT
                                                                                                                                                              ACMGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCCCATCCTTGAGTNCCTCAGTGG
                                                                                                                                                                                                                    AGCACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGA
                                                                                                                                                                                                                                     AGCACACACACGGGCTGAGCGGAACATTCCTAGAGTCAGTGAAGCACCCCTTTATTGTGGA
                                                                                                                                                                                                                                                                        CAAAATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATNCCAAGGACAC
                                                                                                                                                                                                                                                                                                    CAAAATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATGCCAAGGACAC
                                                                                                                                                                                                                                                                                                                                                                                     CAGCGTGAACGTTGGCCCAGAGCGCATCGGGCCCCACTGCTTTGAGCTGCTGCGTGTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGCAGCGAGGGGGAGGCCAGAGCTCAACNCCGCGGACGCATGTNCCCTTGCCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGCAGCGAGGGCGAGGCGAGCCCAGAGCTCAGCCCCGGGGACGCATGTCCCCTTGCCGA 213
                                                                                                                                                                                                                                                                                                                              GGGCAAGGGGGGCTATGGCAAGGTGTTCCAGGNGCGAAANGTGCAAGGCACCAACTTGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GGGCCGCNGGGGCGCCGCCATNGC-GCCGTGTTTGATTTGGATTNNGAGACGGAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    32.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ņ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 593.6; DB 16;
Pred. No. 1e-149;
0; Mismatches 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     669;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gene
                          753
                                                                                                                                                                                        573
                                                                                                                                                                                                                                             513
                                                                               693
                                                                                                          536
                                                                                                                                     633
                                                                                                                                                              477
                                                                                                                                                                                                                    417
                                                                                                                                                                                                                                                                                                    453
                                                                                                                                                                                                                                                                                                                                                                                                               333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               124
 655
                                                      595
                                                                                                                                                                                                                                                                        357
                                                                                                                                                                                                                                                                                                                                                                                   237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64
                                                                                                                                                                                                                                                                                                                              297
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Expressi
                                        밁
                                                                Ś
                                                                                            밁
                                                                                                                   8,
                                                                                                                                                뭐
                                                                                                                                                                        Ş
                                                                                                                                                                                                     B
                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                        よ
                                                                                                                                                                                                                                                                                   \delta
                                                                                                                                                                                                                                                                                                                片
                                                                                                                                                                                                                                                                                                                                       S
                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                               Ś
                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             US-10-425-114-26874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-425-114-26874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity
Matches 886; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: DNA
              629
                                                                                                                                                  452
                                                                                                                                                                            457
                                                                                                                                                                                                      392
                                                                                                                                                                                                                                 397
                                                                                                                                                                                                                                                           332
                                                                                                                                                                                                                                                                                     337
                                                                                                                                                                                                                                                                                                                 272
                                                                                                                                                                                                                                                                                                                                            277
                                                                                                                                                                                                                                                                                                                                                                      212
                                                                                                                                                                                                                                                                                                                                                                                                  220
                                                                                                                                                                                                                                                                                                                                                                                                                            152
                                                                                                                                                                                                                                                                                                                                                                                                                                                      160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         656 TGGÁCTCTGCAÁGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        754 TGGACTCTGCAAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
```

```
GENERAL INFORMATION:

APPLICANT: Liu, Jingdong
APPLICANT: Zhou, Yihua
APPLICANT: Kovalic, David K.
APPLICANT: Kovalic, David K.
APPLICANT: Kovalic, David K.
APPLICANT: Tabaska, Jack B
APPLICANT: Cao, Yongwei
ITILE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
ITILE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILLE REFERENCE: 38-21[5313] B
CURRENT APPLICATION NUMBER: US/10/425,114
CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 73128
SEQ ID NO 26874
LENGTH: 2362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 26874, Application US/10425114 Publication No. US20040034888A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: Clone ID: LIB4656-028-B10_FLI
                                                                                 AATTTATGCCTTTCAGACTGGTGGAAAACTCTACCTCATCCTTGAGTATCTCAGTGGAGG
                                                                                                                 GGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTGAGTGCCTCAGTGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                         CAAGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAGGCACCAACTTGGGCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGTGAACGTTGGGCCAGAGCGCATCGGGCCCACTGCTTTGAGCTGCTGCTGTGCTGGG
                                          CGAGCTCTTCACGCATCTGGAGCGAGAGGGCATCTTCCTGGAAGATACGGCC-----
                                                                                                                                                                               TCATACAAAAGCAGAACGGAATATTCTGGAGGAAGTAAAGCATCCCTTCATCGTGGATTT
                                                                                                                                                                                                                              ACACACACGGGCTGAGCGGAACATTCTAGAGTCAGTGAAGCACCCCTTTATTGTGGAACT
                                                                                                                                                                                                                                                                                                                AATATATGCCATGAAAGTCCTAAGGAAGGCCAAAATTGTGCGCAATGCCAAGGACACAGC
                                                                                                                                                                                                                                                                                                                                                                      TAAAGGGGGCTATGGAAAGGTTTTTCAAGTACGAAAAGTAACAGGAGCAAATACTGGGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             TGTGAACAGAGGCCAGAAAAAATCAGACCAGAATGTTTTGAGCTACTTCGGGTACTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GÓGCTCTÓAGGATGAGCTGGAGGAGGGGGGTCAGTTAAATGAAAGCATGGACCATGGGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGAACTATTTATGCAGTTAGAAAGAGAGGGGAATATTTATGGAAGACACTGCCTGGCTTGA
                                                                                                                                                                                                                                                                           AATATTTGCCATGAAGGTGCTTAAAAAGGCAATGATAGTAAGAAATGCTAAAGATACAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AGTTGGACCATATGAACTTGGCATGGAACATTGTGAGAAATTTGAAAATCTCAGAAACTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           29.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 534.8; DB 13;
Pred. No. 9.4e-134;
0; Mismatches 422;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  151
  631
                                              628
                                                                                           571
                                                                                                                                        576
                                                                                                                                                                                                                              516
                                                                                                                                                                                                                                                                                                                          456
                                                                                                                                                                                    511
                                                                                                                                                                                                                                                                             451
                                                                                                                                                                                                                                                                                                                                                                         391
                                                                                                                                                                                                                                                                                                                                                                                                                     396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   219
```

```
Sequence 1, Application US/09817310
Patent No. US20010042254A1
GENERAL INFORMATION:
APPLICANT: Stewart, Mary
APPLICANT: Kozma, Sarah
FILL OF INVENTION: Drosophila Melanogaster P70
FILL REFERENCE: 4-20971/A
CURRENT FILING DATE: 2001-03-26
PRIOR APPLICATION NUMBER: US/09/817,310
CURRENT FILING DATE: 2001-03-26
PRIOR APPLICATION NUMBER: 09/230,247
PRIOR FILING DATE: 1999-04-16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      당
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Š
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 망
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                     NESULT 15
US-09-817-310-1
                                                                                                                                                                                                                                                                                                       ДĠ
                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                       맒
                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                    뮍
                                                                                                                                                                                                                                                                                                                                                                                                                                                               S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                 음 침
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1232
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1052
                                                                                                                                                                                                                                                                                                                                                                                                                                       1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            922
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         932
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          692
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                742
                                                                                                                                                                                                                                                                                                              ATCACCTCGAAGATTTATTGGCAGCCCACGAACACCTGTCAGCCCAGTCAAATTTTCTCC
                                                                                                                                                                                                                                                                                                                                                                                              GCAATCTGAAGAGGATGTAAGTCAGTTTGATTCCAAGTTTACACGTCAGACACCTGTCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GCAGTCAGAGGAGGACGTGAGCCAGTTTGATACCCGCTTCACACGGCAGACGCCGGTGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACACATTAACTGGGAAGAACTTCTGGCTCGAAAGGTGGAGCCCCCCTTTAAACCTCTGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GCACATGAATTGGGACGACCTTCTGGCCTGGCGTGTGGACCCCCCTTTCAGGCCCTGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTCTCCTCTGGGAGCTGGTCCTGGGGACGCTGGAGAGTTCAAGCTCATCCATTCTTAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCAGCGGATTGGGGGTGGCCCAGGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TCCCTACCTCACACAAGAAGCCAGAGATCTGCTTAAAAAGCTGCTGAAAAAGAAATGCTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCCCTACCTCACCCCAGATGCCCCGGGACCTTGTCAAAAAGTTTCTGAAACGGAATCCCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CACTGGGGAGAATAGAAAGAAAATTGACAAAATCCTCAAATGTAAACTCAATTTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TRCCGCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGTGGATTGGTGAGTTTTGGGAGCATTAATGTATGACATGCTGACTGGAGCACCCCCCATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TGTGGACTGGTGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TTGTGGAACAATAGAATACATGGCCCCTGAAATCTTGATGAGAAGTGGCCACAATCGTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTGCGGCACCATTGAGTACATGGCCCCTGAGATTCTGGTGCGCAGTGGCCACAACCGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GATCATCTACAGAGACCTGAAGCCGGAGAATATCATGCTTAATCACCAAGGTCATGTGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CATCATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCAGGGCCACATCAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTTGAATTGCTTTTACTTGGCAGAAATCTCCATGGCTTTGGGGGCATTTACATCAAAAGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TTTTGA 1407
                                                                                                                                                                                                                                                                                                                                 CTCACCCAGGCGCTCAACAGTAGCCCCCGGGGTCCCCGTCAAGTTCTCCCCC
                                                                                                                                                                                                                                                                                                                                                                          TGTGGCTCCATCTGTACTTGAAAGTGTGAAAGAAAAGTTTTCCTTTGAACCAAAAATCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -TGCTTCTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCACTCCCAGGG
                                                                                 P70
                                                                                S6 Kinase
                                                                                                                                                                                                                                                                                                                                           1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1041
                                                                                                                                                                                                                                                                                                              1471
                                                                                                                                                                                                                                                                                                                                                                          1411
                                                                                                                                                                                                                                                                                                                                                                                                      1341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1051
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              981
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         921
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   861
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        751
                                                                                                                                                    р.
В
                                                                                              밁
                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; NUMBER OF SEQ ID NOS: 5
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 2556
; TYPE: DNA
; ORGANISM: Drosophila melanogaster
US-09-817-310-1
                                                              δ
                                                                                                                                                                                   Ś
                                                                                                                                                                                                                    문
                                                                                                                                                                                                                                              á
                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                           밁
                                                                                                                                                                                                                                                                                                                                                                                                                                Ś
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B
                                   밁
                                                                                                                                                                                                                                                                                                      δ
                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                      밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          문
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 28.3%;
Best Local Similarity 67.9%;
Matches 718; Conservative
                                                                                                                                                           1369
                                                                                                                                                                                                                    1309
                                                                                                                                                                                                                                                                               1249
                                                                                                                                                                                                                                                                                                                                             1189
                                                                                                                                                                                                                                                                                                                                                                                                        1129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1009
                                                                                                                            1041
                                                                                                                                                                                                                                                 921
                                                                                                                                                                                                                                                                                                              198
                                                                                                                                                                                                                                                                                                                                                                          108
                                                                                                                                                                                                                                                                                                                                                                                                                                     741
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            621
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          949
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       561
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  501
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         381
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCTGACTGAGACCAGCGTGAACGTTGGCCCAGAGCGCATCGGGGCCCCACTGCTTTGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TGCTGCGTGTGCTGGGCAAGGGGGCTATGGCAAGGTGTTCCAGGTGCGAAAGGTGCAAG
                                                                                                                GCCAGCGGATTGGGGGTGGCCCAGGGGATGCTGCTGATGTGCAGAGACATCCCTTTTTCC 1100
                                                                                                                                                         AGCTCACGGACTTTGGACTGTGCAAGGAGCACATACAAGAGGGTATTGTCACCCACACCT
                                                                                                                                                                                                                                                                                                                                                                                                                          GCATCATCTACCGCGATCTGAAGCCCCGAGAACATACTGCTCGATGCACAGGGACATGTGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCATCATCTACCGGGACCTCAAGCCCGAGAACATCATGCTCAGCAGCCAGGGCCACATCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATACCACATGCTTCTAACCGAAATCATTTTGGCCTTGGGCCATCTACACAAACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATACGGCCTGCTTCTACCTGGCTGAGATCACGCTGGCCCTGGGCCATCTCCACTCCCAGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGTGCCTCAGTGGTGGCGAGCTCTTCACGCATCTTGGAGCGAGAGGGGCATCTTCCTGGAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CCTTCATAGTGGAGCTAGTTTATGCCTTCCAGACAGACGGAAAACTATACCTTATACTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCTTTATTGTGGAACTGGCCTATGCCTTCCAGACTGGTGGCAAACTCTACCTCATCCTTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCAAAAGGACACAGCGCACACCCGCGCGCGAGCGCAATATACTCGAGGCAGTCAAGCATC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGCCAAGGACACAGCACACACACAGGGGCTGAGGGGGAACATTCTAGAGTCAGTGAAGCACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GACGAGATGCTAACAAATATTTTGCCATGAAGGTGCTCAAAAAGGCATCCATTGTGACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAAGAAGGTCCTTGGCAAAGGCGGTTATGGCAAAGTATTTCAGGTGCGCAAGACCGCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AGCTCTGCGAGGAGGATGTTAATCCAGGTAAAATCAAGCTGGGACCCAAGGACTTTGAGC
                                     AACACGTCAACTGGGGACGATGTGCTCGCCAGACGCCTCGAGCCGCCTATAAAACCGCTCT 1548
                                                                   GGCACATGAATTGGGACCACCTTCTGGCCTGGCGTGTGGACCCCCTTTCAGGCCCTGTC
                                                                                                CTCAGOGCCTTGGCAGCGACCCGAGGATGCGGCGGCTGTTCAAATACACCCCATTCTTCA
                                                                                                                                                                                                                      TCACCGCCGAGAATCGCAAGAAGACCATCGAGACCATTCTGAAAGCCCAAGCTCAATCTGC
                                                                                                                                                                                                                                    TTACCGCAGAGAACCGGAAGAAAACCATGGATAAGATCATCAGGGGCAAGCTGGCACTGC 980
                                                                                                                                                                                                                                                                                CAGTCGACTGGTGGTCACTGGGCGCTCTCATGTTTGACATGCTCACAGGAGTCCCACCCT
                                                                                                                                                                                                                                                                                                  CTGTGGACTGGTGGAGCCTGGGGGCCCTGATGTACGACATGCTCACTGGATCGCCGCCCT
                                                                                                                                                                                                                                                                                                                                             TCTGCGGCACAATTGAGTACATGGCACCTGAAATTTTGACCAGAAGTGGCCATGGCAAAG
                                                                                                                                                                                                                                                                                                                                                                       TGCAGTCAGAGGACGTGAGCCAGTTTGATACCCGCCTTCACACGGCAGACGCCGGTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 514; DB 9; Length 2556; 
Pred. No. 3.8e-128; 
0; Mismatches 340; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
```

1488

920

1248 860

1308

1188 800 1128 740 1068 680 1008 620 560

948

888 500 828 440 380

768

708

320

	Search Job ti	DЪ	Ş	Db Db	Ş	Db
	Search completed: July 3, 2004, 12:15:25 Job time : 850 secs	1669 ACGTTGCACCCTCGATACTGGAGGATATGCATCGGGCC 1706	1281 ACGTGGCCGTCTGTCCTGGACAGCATCAAGGAGGGC 1318	1609 ATTCCCCTGATGATACAACGCTAAGCGAAAGTGCCAATTTAATTTTCCAAGGTTTCACCT 1668	1221 ACAGTCCTGATGACACAGCCCTCAGCGAGAGTGCCAACCAGGCCTTCCTGGGCTTCACAT 1280	

**بر**